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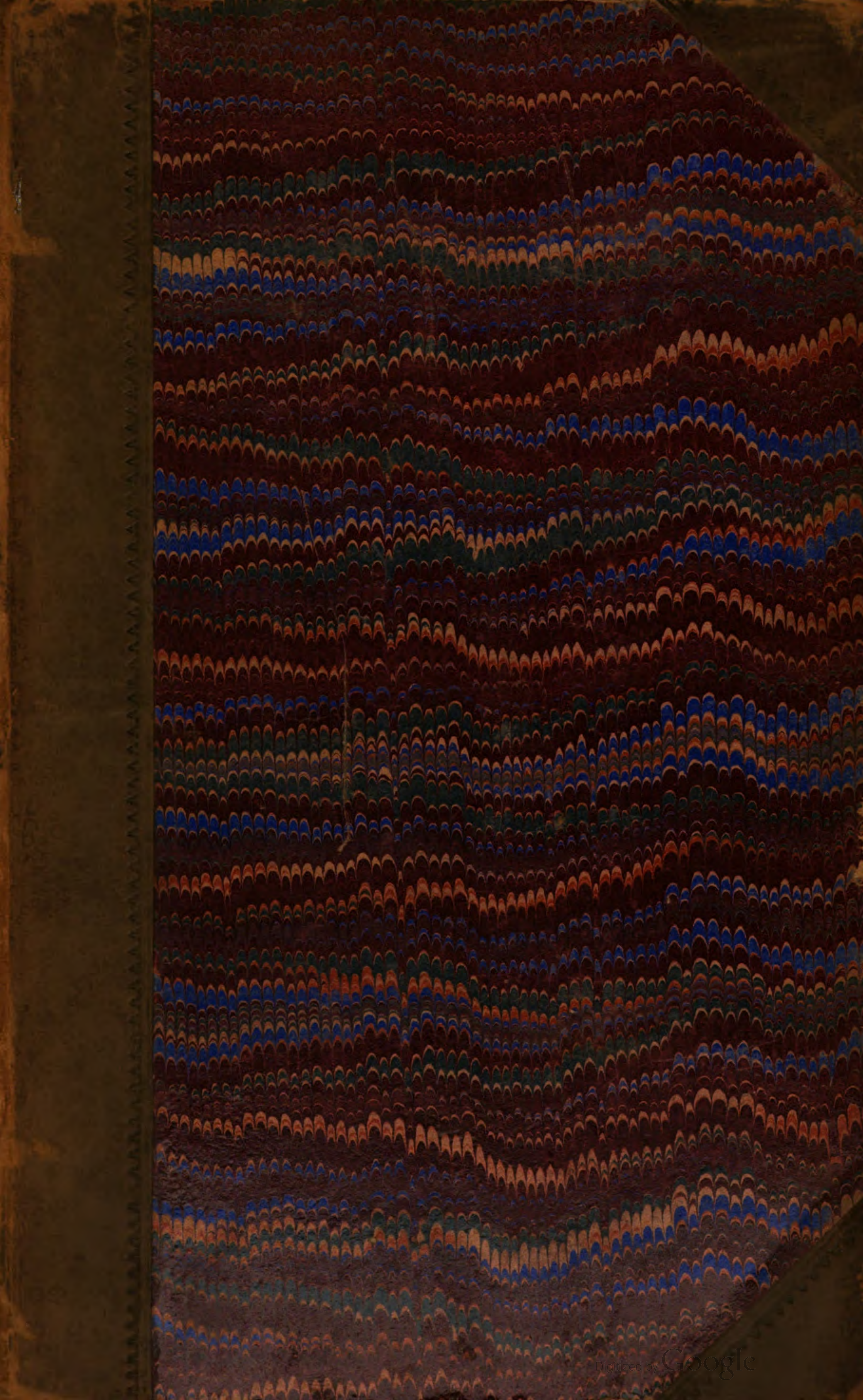

BROADBERE,
BARGATE SOUTHAMPTON

631

ARMY MEDICAL DEPARTMENT

REPORT

FOR THE YEAR 1884.

VOLUME XXVI.

LONDON:
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PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1886.

TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR WAR.

Sir,

In accordance with instructions laid down for the conduct of business by the Director-General and Heads of Branches of the Army Medical Department, I have the honour to submit the accompanying Report on the Health of the Army in 1884, drawn up by the Officers in charge of the respective Branches.

I have the honour to be,
Sir,
Your most obedient
Humble Servant,
T. CRAWFORD,
Director-General.

Army Medical Department,
June 1886.

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CONTENTS.

PAGE

Letter from the Director-General to the Secretary of State for War - iii

REPORT.

I. Summary of the Health of White Troops at all Stations - 1
II. On the Health of the Troops serving in the UNITED KINGDOM—
    Sickness and Mortality - 4
    Prevalence of Primary Venereal Sores at each of the large Stations - 8
    Tables relating to the Contagious Diseases Acts, 1860–84 - 10
    Remarks on the Prevalence of the principal Diseases in Military Districts - 18
    Admissions, Deaths, and Invaliding, &c., from the different Arms of the Service - 18
    Officers, Women and Children - 19
    Vaccination - 22
    On the Recruiting of the Army - 26
    Number of Recruits Inspected and Rejected - 26
    Native Countries of the Recruits inspected - 27
    Number inspected for each Arm of the Service - 27
    Previous occupations of Recruits - 28
    Extent of Education of Recruits inspected - 28
    Causes of Rejection of Recruits - 29
    Ages of the Recruits - 30
    Height of the Recruits - 31
    Weight of the Recruits inspected by Army Medical Officers - 32
    Chest Measurement of the Recruits - 32
    Tables showing the Heights, Weights, and Chest Measurements at the different Ages with the proportions per 10,000 at each Age - 33
    On the influence of Age on the Mortality - 36
    HOME STATIONS. *Sanitary Conditions*—
        Northern District - 37
        Eastern District - 37
        Western District - 37
        Southern District - 38
        Netley - 38
        Chatham District - 39
        South-Eastern District - 39
        Home District - 40
        Woolwich District - 40
        Aldershot - 41
        North British District - 42
        Channel Islands - 42
        Ireland:
            Belfast District - 42
            Dublin District - 43
            Cork District - 43
            Curragh District - 44
III. On the Health of the Troops serving in the MEDITERRANEAN—
    I. Gibraltar:
        Sickness and Mortality - 45
        Sanitary Conditions - 48
    II. Malta:
        Sickness and Mortality - 48
        Sanitary Conditions - 52
    Royal Malta Fencible Artillery
        Sickness and Mortality - 53
        Sanitary Conditions - 54

PAGE
III. Cyprus:
Sickness and Mortality - - - - - - 54
Sanitary Conditions - - - - - - 56
IV. On the Health of the Troops serving in the DOMINION OF CANADA—
Sickness and Mortality - - - - - - 57
Sanitary Conditions - - - - - - 59
V. On the Health of the Troops serving in BERMUDA—
Sickness and Mortality - - - - - - 60
Sanitary Conditions - - - - - - 62
VI. On the Health of the Troops serving in the WEST INDIES—
I. White Troops:
Sickness and Mortality - - - - - - 63
Sanitary Conditions - - - - - - 65
II. Black Troops:
Sickness and Mortality - - - - - - 65
Sanitary Conditions - - - - - - 66
VII. On the Health of the Troops serving in WESTERN AFRICA—
I. White Troops:
Sickness and Mortality - - - - - - 67
II. Black Troops:
Sickness and Mortality - - - - - - 67
Sanitary Conditions - - - - - - 68
VIII. On the Health of the Troops serving at the CAPE OF GOOD HOPE AND ST. HELENA—
Sickness and Mortality - - - - - - - 69
Sanitary Conditions - - - - - - - 72
IX. On the Health of the Troops serving in the MAURITIUS—
Sickness and Mortality - - - - - - - 73
Sanitary Conditions - - - - - - - 74
X. On the Health of the Troops serving in CEYLON—
I. White Troops:
Sickness and Mortality - - - - - - 76
Sanitary Conditions - - - - - - - 78
II. Asiatic Troops:
Sickness and Mortality - - - - - - 78
XI. On the Health of the Troops serving in CHINA and the STRAITS SETTLEMENTS—
I. White Troops:
Sickness and Mortality - - - - - - 79
Sanitary Conditions - - - - - - - 82
II. Asiatic Troops:
Sickness and Mortality - - - - - - 82
XII. On the Health of the European Troops serving in INDIA—
Sickness and Mortality - - - - - - 84
I. Bengal:
Sickness and Mortality - - - - - - 85
Sanitary Conditions - - - - - - 96
II. Madras:
Sickness and Mortality - - - - - - 99
Sanitary Conditions - - - - - - 106
III. Bombay:
Sickness and Mortality - - - - - - 109
Sanitary Conditions - - - - - - 116
XIII. On the Health of Troops serving in EGYPT—
Sickness and Mortality - - - - - - 119
Sanitary Conditions - - - - - - 124

PAGE

XIV. On the Health of the Troops on BOARD SHIP—

I. Troops proceeding on Foreign Service - 126
II. „ returning from ditto - 127
III. „ proceeding from one Station abroad to another - 128
IV. Invalids returning to England - 129

ABSTRACTS—HOME.

No. I.—United Kingdom, Summary of the Health of the Troops serving in - 130
A.—Northern District, ditto - 132
B.—Eastern District, ditto - 134
C.—Western District, ditto - 136
D.—Southern District, ditto - 138
E.—Chatham District, ditto - 140
F.—South-Eastern District, ditto - 142
G.—Home District, ditto - 144
H.—Woolwich District, ditto - 146
I.—Aldershot District, ditto - 148
J.—North British District, ditto - 150
K.—Channel Isles, ditto - 152
L.—Belfast District, ditto - 154
M.—Dublin District, ditto - 156
N.—Cork District, ditto - 158
O.—Curragh District, ditto - 160
P.—Summary of the Health of the Officers, Women, and Children in the United Kingdom - 162

ABSTRACTS—FOREIGN.

No. II.—Gibraltar, Summary of the Health of the Troops serving in - 164
III.—Malta, ditto - 166
IIIA. „ Royal Fencible Artillery, ditto - 168
IV.—Cyprus, ditto - 170
V.—Dominion of Canada, ditto - 172
VI.—Bermuda, ditto - 174
VII.—West Indies, White Troops, ditto - 176
VIII.—Ditto, Black Troops, ditto - 178
IX.—West Africa, ditto - 180
X.—Cape of Good Hope and St. Helena, ditto - 182
XI.—Mauritius, ditto - 184
XII.—Ceylon, ditto - 186
XIII.—China and Straits Settlements, ditto - 188

ABSTRACTS—INDIA.

Bengal.

No. XIV.—Summary of the Health of the Troops serving in - 190
XV.—Admissions and Deaths at the chief Stations - 192
XVI.—Admissions and Deaths by Classes of Diseases in each of the Military Divisions - 194
XVII.—Enteric Fever - 198
XVIII.—Cholera - 200
XIX.—Dysentery, Diarrhœa, and Hepatitis in each Division - 201
XX.—Ditto, ditto, comparative prevalence to Seasons - 202
XXI.—Mortality and Invaliding - 203

Madras.

XXII.—Summary of the Health of the Troops serving in - 204
XXIII.—Admissions and Deaths at the chief Stations - 206
XXIV.—Admissions and Deaths by Classes of Diseases in each of the Military Divisions - 208
XXV.—Enteric Fever - 210
XXVI.—Cholera - 210
XXVII.—Dysentery, Diarrhœa, and Hepatitis in each Division - 211
XXVIII.—Ditto, ditto, comparative prevalence to Seasons - 212
XXIX.—Mortality and Invaliding - 214

PAGE

Bombay.

XXX.—Summary of the Health of the Troops serving in - 216
XXXI.—Admissions and Deaths at the chief Stations - - 218
XXXII.—Admissions and Deaths by Classes of Diseases in each of the Military Divisions - - - - - 220
XXXIII.—Enteric Fever - - - - - - - 222
XXXIV.—Cholera - - - - - - - - 222
XXXV.—Dysentery, Diarrhœa, and Hepatitis in each Division - 223
XXXVI.—Ditto, ditto, comparative prevalence to Seasons - 224
XXXVII.—Mortality and Invaliding - - - - - 226

XXXVIII.—Egypt.—Summary of the Health of the Troops serving in - - - - - - - - 228

XXXIX.—Troops on Board Ship, Summary of the Health of the 230

XL.—Influence of Age on Mortality in Foreign Commands - 232

XLI.—Health Statistics of Corps in the United Kingdom - 233
XLII.—Health Statistics of Corps in Foreign Commands, exclusive of India - - - - - - 257
XLIII.—Health Statistics of Corps in Bengal - - - 265
XLIV.—Health Statistics of Corps in Madras - - - 272
XLV.—Health Statistics of Corps in Bombay - - - 275

APPENDIX.

PAGE

No. I.—Medical History of the Nile Expeditionary Force from 18th March 1884 to 31st July 1885. By Surgeon-Major G. B. Mouat, M.D., Medical Staff - - - - - - 279

II.—Report on the Medical and Surgical Transactions of the Suakin Expeditionary Force. By Deputy Surgeon General Oliver Barnett, C.I.E. - - - - - - - 298

III.—Report of No. 2 Field Hospital (Base) for followers (Native, Arab, and European) with the British Forces, Eastern Soudan, from 12th March to 10th June 1885. By Surgeon H. Hendley, Indian Medical Service - - - - - 307

IV.—Notes on equipment, &c. taken during active service in the neighbourhood of Suakin. By Surgeon-Major J. Fleming, M.D., Medical Staff - - - - - 320

V.—Case of Hydrophobia. By Surgeon P. J. Freyer, Indian Medical Service - - - - - - - 322

VI.—Report on anomalous cases of Fever. By James Magill, M.D., Surgeon, Coldstream Guards - - - - - 325

VII.—Report on the Hospital Ship "Ganges." By Brigade Surgeon G. C. Gribbon, M.B., Medical Staff - - - - - 327

VIII.—Report of Medical Transactions with the Bechuanaland Field Force, South Africa. By Deputy Surgeon General J. G. Faught, Medical Staff - - - - - - 351

IX.—Case of Diaphragmatic Hernia of the Stomach. By Surgeon J. Boyd, Medical Staff - - - - - - 355

X.—Description of a preparation of the upper part of a Femur after gunshot fracture sent to Netley, with remarks. By Surgeon General T. Longmore, C.B., h.p., Professor of Military Surgery, Army Medical School - - - - 356

XI.—Report on the Competitive Exhibition of movable Hut-hospitals at Antwerp, 1885. By Surgeon General T. Longmore, C.B., h.p., Professor of Military Surgery, Army Medical School - 360

XII.—Case of Aneurism of the descending Aorta. By Surgeon-Major M. Johnson, Militia Medical Staff - - - - 365

XIII.—Case of Gunshot Injury of the Head. By Surgeon E. M. Wilson, Medical Staff - - - - - - 367

XIV.—Notes on cases of Hydrophobia - - - - - 370

XV.—Suicide in the Army, 1884 - - - - - - 375

XVI.—Description of Huts for Troops at Suakin - - - - 378

XVII.—List of operations at Netley. By Surgeon-Major C. H. Y. Godwin, Assistant Professor, Military Surgery, Army Medical School, Netley - - - - - - - 380

PAGE
No. XVIII.—Metereological observations at Netley and Foreign Stations 386
XIX.—Table of Venereal Diseases, 1860–1884 - - - 400
XX.—The Parkes' Memorial Prize - - - - 405
XXI.—The Alexander Memorial Fund - - - - 406

ARMY MEDICAL DEPARTMENT REPORT FOR 1884.

STATISTICAL REPORT.

Troops at Home and Abroad.

The average annual strength of the troops serving at home and abroad in 1884, as computed from the returns received by the Army Medical Department, was 167,686 warrant officers, non-commissioned officers and men (exclusive of the Royal Malta Fencible Artillery, the 1st and 2nd West India Regiments, and the Gun Lascars at Ceylon, and at Hong Kong, Corps which are not recruited at home); the admissions into hospital in this force were 183,127 and the deaths 1,436. The rates represented by these numbers are for admissions into hospital 1092·1 and for deaths 8·42 per 1,000 of the average annual strength, the latter being calculated on a strength of 170,564, which includes detached men.

The statistics of some of the most important of the results of sickness, in every Command in which the troops were stationed, are exhibited in the following Table :—

1884.

White Troops.	Average Strength.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad	**167,686**	**183,127**	**1,436**	**2,648**	**3,019**	**9302·57**
United Kingdom	83,135	72,344	459	—	1,797	4059·14
Gibraltar	4,712	4,556	19	156	46	262·25
Malta	4,637	3,897	43	141	83	258·93
Cyprus	495	373	8	17	6	15·73
Egypt	6,468	8,190	75	320	165	497·08
Canada	1,265	985	8	26	26	64·28
Bermuda	1,551	958	17	—	4	50·25
West Indies	970	727	11	27	13	38·65
Cape of Good Hope and St. Helena	3,157	2,145	25	75	45	139·24
Mauritius	363	833	8	17	3	34·75
Ceylon	985	1,180	11	32	13	66·48
China and Straits Settlements	1,988	1,948	14	76	28	93·21
India	55,252	82,586	720	1,761	790	3722·58
On board Ship	2,708	2,405	18	—	—	—

Troops at Home and Abroad.

1884.

White Troops.	Ratio per 1,000 of Strength.					Average sick-time to each Soldier.	Average duration of each case of Sickness.
	Admitted.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.		
	*	†	‡	§	‖	Days.‖	Days.‖
Troops at Home and Abroad -	**1092·1**	**8·42**	**32·35**	**17·98**	**56·38**	**20·63**	**18·84**
United Kingdom -	870·2	5·33	—	20·89	48·82	17·87	20·53
Gibraltar - -	966·9	4·03	33·10	9·76	55·65	20·37	21·06
Malta - - -	840·4	9·27	30·41	17·89	55·84	20·43	24·32
Cyprus - -	753·5	16·16	34·34	12·12	31·77	11·63	15·43
Egypt - - -	1266·2	11·59	49·47	25·51	76·85	28·05	22·15
Canada - -	778·7	6·32	20·55	20·55	50·81	18·59	23·88
Bermuda - -	617·6	10·96	—	2·57	32·40	11·86	19·20
West Indies - ·	749·5	11·33	27·83	13·39	39·84	14·58	19·46
Cape of. Good Hope and St. Helena -	679·4	7·91	23·76	14·25	44·10	16·14	23·76
Mauritius - -	2294·8	22·03	46·83	8·26	95·73	35·03	15·26
Ceylon · -	1198·0	11·17	32·49	13·20	67·49	24·70	20·62
China and Straits Settlements - -	979·9	7·04	38·23	14·08	46·89	17·16	17·51
India - - -	1494·7	13·03	31·87	14·30	67·37	24·66	16·50
On board Ship -	888·1	6·64	—	—	—	—	—

* Calculated on strength, excluding men detached (2,878).

† Calculated on strength, including men detached.

‡ Calculated on strength, excluding United Kingdom and troops on board ship.

§ Calculated on strength, including men detached, and excluding troops on board ship.

‖ Calculations exclude men detached and troops on board ship.

1874 to 1883.

White Troops.	Aggregate strength for 10 years.	Admissions into Hospital.	Deaths.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad - ·	**1,701,553**	**1,786,426**	**21,056**	**31,388**	**37,235**	**83.723**
United Kingdom -	873,875	734,214	6,918	—	24,166	37,398
Gibraltar - -	46,197	34,065	320	1,329	644	2,043
Malta - - -	48,549	41,778	472	1,419	782	2,327
*Cyprus - - -	3,504	6,469	62	195	64	312
†Egypt - - -	7,897	8,995	275	669	176	601
Canada - · -	17,283	12,204	98	418	289	597
Bermuda - -	17,990	11,354	135	348	222	611
West Indies - -	10,509	9,933	168	283	156	477
Cape of Good Hope and St. Helena - -	52,824	44,093	2,128	3,065	1,125	2,650
Mauritius · -	3,949	8,201	66	167	54	287
Ceylon - - -	10,000	10,493	140	384	137	544
China and Straits Settlements - - -	19,032	19,972	206	819	336	937
India - - -	563,777	826,403	9,879	22,292	9,084	34,939
On board Ship - -	26,167	18,252	189	—	—	—

* For six years only. † For one year only.

Troops at Home and Abroad.

1874 to 1883.

White Troops.	Ratio per 1,000 of Strength.					Average sick-time to each Soldier.	Average duration of each case of Sickness.
	Admitted.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.		
						Days.	Days.
Troops at Home and Abroad	**1049·9**	**12·06**	**39·16**	**21·66**	**49·97**	**18·24**	**17·28**
United Kingdom	840·2	7·53	—	26·33	42·79	15·62	18·59
Gibraltar	737·4	6·93	28·83	13·94	44·22	16·14	21·89
Malta	860·5	9·72	29·23	16·11	47·93	17·49	20·33
*Cyprus	1846·2	17·69	55·65	18·26	89·04	32·50	17·60
†Egypt	1139·0	34·82	84·71	22·29	76·07	27·77	24·38
Canada	706·1	5·67	24·18	16·72	34·54	12·61	17·85
Bermuda	631·1	7·50	19·34	12·34	33·96	12·43	19·69
West Indies	945·2	15·98	26·93	14·84	45·39	16·61	17·57
Cape of Good Hope and St. Helena	834·7	40·28	58·02	21·30	50·17	18·31	21·92
Mauritius	2076·7	16·71	42·29	13·67	72·67	26·52	12·77
Ceylon	1049·3	14·00	38·40	13·70	54·40	19·86	18·92
China and Straits Settlements	1049·4	10·82	43·03	17·65	49·23	17·97	17·12
India	1465·8	17·52	39·54	16·11	61·97	22·62	15·43
On board Ship	697·5	7·22	—	—	—	—	—

* For six years only. † For one year only.

United Kingdom.

II.—ON THE HEALTH OF THE TROOPS SERVING IN THE UNITED KINGDOM.

Sickness and Mortality.

The average strength of warrant officers, non-commissioned officers and men serving in the United Kingdom during the year 1884 was 83,135, calculated from returns received from medical officers; the admissions into hospital numbered 72,344, the deaths 459 (including 29 among men detached from their corps, the average number of whom is given in the Adjutant-General's return as 2,878), and the invalids discharged the service 1,797. The average number of men non-effective daily through sickness was 4059·14, the average sick time to each soldier was 17·87 days, and the average duration of each case of sickness 20·53 days.

The ratio of admission per 1,000 of strength was therefore 870·2, that of death 5·33, that of discharge by invaliding 20·89, and that of constant inefficiency through sickness 48·82.

Compared with the corresponding rates for the previous year an increase of 23·7 per 1,000 has taken place in the ratio of admission, and one of 1·25 in that of constantly sick, while with regard to the ratios of mortality and invaliding a fractional decrease is observed in each, being ·95 and ·59 per 1,000 respectively. The average sick time to each soldier and the average duration of each case of sickness are both fractionally greater, the increase being ·51 in the former instance and ·02 in the latter.

In comparison with the similar average rates for the preceding 10 years an increase is observed in the rate of admission equal to 30·0 per 1,000, and in the constantly sick rate one equal to 6·03 per 1,000. The death rate is decreased by 2·20 and the invaliding rate by 6·03 per 1,000. The average sick time to each soldier and average duration of each case of sickness are longer than the corresponding decennial average periods by 2·25 days and 1·94 days respectively.

The total loss for the year by death and final discharge of men from the service by invaliding was 2,256, or at the rate of 26·22 per 1,000 as compared with 27·76 per 1,000 in the preceding year.

The admissions, deaths, invaliding, &c., in the various classes and orders of diseases are given in Abstract I., and similar information for the different military districts will be found in the Abstracts lettered from A to O.

GENERAL DISEASES.—*Febrile Group.*—The number of admissions to hospital under this head was 2,579, the deaths 30, and the average constantly sick 112·72. The ratio of admission was therefore 31·0, that of mortality ·34, and that of constant inefficiency on account of febrile affections 1·35 per 1,000. Compared with the corresponding rates for the preceding year a slight decrease is observed in all, being 2·8, ·06, and ·08 per 1,000 respectively; but in comparison with similar average rates for the previous quinquennial period the decrease is more marked in each rate, being to 12·0 per 1,000 in the case of admission, ·14 in that of death, and ·29 per 1,000 in that of constantly sick.

Eruptive Fevers caused 474 admissions and 1 death, being in the ratios of 5·7 per 1,000 and ·01 respectively. The ratio of admission does not differ from the average rate, though it is slightly above that of the previous year. The death rate compares favourably in both cases. Small-pox was the cause of 10 admissions as compared with 6 in the preceding year, 3 of the cases occurred in the Northern district, 1 at Sunderland, Newcastle, and Tynemouth respectively, 3 cases occurred at Winchester, all in young recruits recently joined, a recruit also was attacked at Guildford, and there was 1 case in London, Devonport, and Windsor respectively. All the cases recovered.

United Kingdom.

Scarlet Fever caused 170 admissions, equal to 2·0 per 1,000, being nearly twice as prevalent as in the previous year, when there were 87 cases or 1·1 per 1,000. Every district, except the Channel Islands, was affected. The greatest number of attacks, 44, occurred in Aldershot, the cases occurred mostly in the first half of the year and were, as a rule, mild; 24 cases occurred in the Southern district, Portsmouth, Winchester, and Devizes being chiefly affected, only one case was severe; 20 cases occurred in Dublin, all of which are reported to have been mild; 15 cases were treated at Woolwich; 11 happened in the Eastern district and single numbers in the remaining districts. Measles also, 173 cases or 2·1 per 1,000, was somewhat more prevalent than in the preceding year, when the ratio was only 1·8 per 1,000. In the Home district 52 cases occurred, of which 36 happened in London and 12 at Caterham. Aldershot shows 36 cases as compared with 12 in the previous year; at Woolwich there were 21 cases, in the Southern district 18 cases, in the Eastern 10 cases, and smaller numbers in all the remaining districts but two, Cork and the Curragh, which were unaffected.

Continued Fevers caused 1,123 admissions and 18 deaths, which give the respective ratios of 13·5 and ·21 per 1,000 of strength. Compared with corresponding rates for 1883 the ratio of admission shows no change, but the mortality is decreased by ·04; in comparison, however, with the similar quinquennial average rates there is a decrease of 1·9 per 1,000 in the former and ·11 in the latter.

One case of *typhus fever* is reported to have occurred at Queenstown, and a case of cerebro-spinal fever, with fatal issue, is returned from Windsor.

Enteric Fever caused 89 admissions and 17 deaths, as compared with 105 admissions and 21 deaths in the preceding year. The rate of prevalence, 1·1 per 1,000, and of mortality, ·20 per 1,000, are both slightly below the corresponding rates in the previous year. Compared with the average of the preceding five years there is a decrease of ·3 per 1,000 in admission rate, but an increase of ·02 in mortality rate. Among the 17 deaths there were two which occurred out of hospital; these cases do not appear in the recorded number of admissions; including them, therefore, the per-centage of deaths to attacks is found to be 19·1. The greater number of the different districts were affected in some degree, Chatham and the Channel Islands only escaping, the greatest prevalence being, as in the previous year, in Dublin, Cork, and Aldershot, the number of cases in each being 20, 14, and 18 respectively. Taking individual stations it is found that Dublin shows the greatest number of cases, 19 with 2 deaths; the cases were spread over the different hospitals, 8 having been treated in the Royal Infirmary, 4 at the Richmond Barracks, 3 at Portobello, and 2 at Beggar's Bush and Arbor Hill respectively. Of the 18 cases in Aldershot none were fatal; only one case occurred in the North Camp; of the remaining 17 cases 13 were treated in the 2nd Station Hospital, 8 of which came from the East Cavalry Barracks; among 4 cases at the Cambridge Hospital, one is reported to have been very severe. Nine cases occurred at Limerick, of which 3 were fatal. It is reported that their origin was traced to defective sanitary condition of waterclosets. Four cases occurred in London, originating in different barracks. Three fatal cases occurred at Worcester; the subjects were all recruits, in two of the instances the disease is said to have been contracted at Kidderminster, in the third case no information is given. Three cases, recoveries, happened in Cork, and were not traced to any insanitary condition in barracks, but were supposed to have been contracted in the city. At the Curragh also there were 3 cases, which all did well. At York there were two cases, one fatal, but cases at Bradford and Tynemouth are also said to have been contracted in York. At Newcastle there were two cases and one death, at Portsmouth and Exeter each two cases, which recovered, and at Fleetwood also two cases, one of which was contracted in Manchester, the origin of the other is unexplained, but it is said that there was no insanitary condition to account for it. Single admissions, with fatal results, occurred at Caterham, Gosport, Canterbury, Chichester, and Piershill respectively, in the last-named case the man is said to have contracted the disease on escort duty at Aberdeen, but in the other four its origin could not be traced. Two deaths out of hospital are returned, one from Devonport and the other from Woolwich; in the first case, the man, who lived in an infected locality out of barracks, was too ill to be moved when first seen; the other

United Kingdom.

case occurred to a man belonging to the Woolwich garrison, but who was away on furlough. Single admissions, recoveries, took place at 12 other stations, in one case, at Kinsale, the cause is given as drinking water from a well, the use of which was prohibited on account of its being found impure; cases of this disease had also occurred at this station towards the close of the previous year; in a case at Chester the subject lived out of barracks in a very insanitary locality; and a case at Ballincollig is said to have been imported from elsewhere; in the remaining cases either no local insanitary causes could be discovered or information on this point is wanting. It is observed from the above that with the exception of the two or three instances noted there has not been great prevalence of the disease at particular stations; indeed, subtracting the total of the cases at the three stations where there was the greatest incidence of the disease there are 43 cases to spread over 30 separate stations.

The admissions for other continued fevers were 1,032 or 12·4 per 1,000, 291 of the cases were due to simple continued fever, the remainder to febricula. The ratio of admission contrasts favourably with the quinquennial average, being decreased by 1·6 per 1,000,but it is in advance of the corresponding ratio of last year by ·2 per 1,000. Comparing the rates of prevalence of these continued fevers in the different administrative districts the highest rate, 19·4 per 1,000, is found in the Northern district. Aldershot is next in order, 16·8, followed by Belfast, 15·4; the North British district, 14·8; Dublin, 14·6; and the Home district, 13·8 per 1,000; the lowest rate occurred at Chatham, 1·3 per 1,000, the next above being Woolwich, 5·7. The Eastern district, Cork, and the Curragh have also comparatively low rates of prevalence. No death is recorded from these fevers.

Paroxysmal Fevers show 462 admissions, of which 7 were for remittent fever and the remainder for ague; one death occurred from the former disease. The ratio of admission, 5·6 per 1,000, shows a considerable reduction as compared with the average rate for the preceding five years, which reached 13·6 per 1,000; it is also below the rate of prevalence in the previous year by 3·0 per 1,000. The greatest prevalence of these fevers was in the South-eastern district, being equal to a rate of 14·8 per 1,000; the Southern district followed next, 11·7 per 1,000, succeeded by Woolwich with 8·5 per 1,000. In all the other districts the rate of prevalence was either about the same or below the average rate, in some cases greatly so. In the North British and the Home Districts the rate was 2·2 and 1·9 per 1,000 respectively, and in the Belfast district the rate was only fractional. Of the cases of remittent fever two happened at Dover, but the remaining five were at separate stations—one at Newcastle, Cardiff, Pembroke, the Curragh, and Portsmouth respectively. The case at the last-named place had a fatal issue; the man had recently landed from service abroad.

Among 520 admissions for *other diseases of the febrile group*, equal to a rate of 6·2 per 1,000, which is below the average, and last year's rate, a case of simple cholera is returned; it occurred in camp at Lydd, and did well. Influenza caused 127 admissions, more than a third of which occurred in the Home district, 27 cases at Caterham, and 17 at Windsor. 244 admissions and 2 deaths are recorded from erysipelas, as compared with 176 cases and 3 deaths in the previous year. In the Home district 32 cases were recorded, of which 24 occurred in London. 29 cases are returned from the Northern district, but they were scattered over 14 stations, so there was no particular prevalence at any one; at Aldershot 26 cases are returned as against 12 in the previous year, but still there is a reduction as compared with other years preceding. 12 of the cases occurred in the North Camp, and the remainder in the South. One case was fatal. Dublin also returned 26 cases, of which 22 occurred in the city itself. In the Cork district there were 21 cases, 7 being in the town and the remander at eight out stations. The Principal Medical Officer remarks that some of the cases were of considerable gravity, and he gives the average duration of each case as 29·5 days. In the Southern district there were 18 cases, 5 at Winchester and 4 at Portsmouth and Gosport respectively. Woolwich and the South-eastern district are next in order with 16 cases each; of the latter 8 occurred at Canterbury and 3 in Dover. In the Western district 15 cases occurred, 3 being at Worcester and Trowbridge respectively; 12 cases are returned in the Eastern district, 10 each in the North British and Chatham, and single numbers in all the remaining districts. The second death occurred

United Kingdom.

at Perth. Pyæmia caused 7 admissions and 7 deaths, of these three cases and two deaths occurred in London, and one case fatal at Gosport, Portsmouth, Athlone, and the Curragh respectively; the remaining death occurred in Jersey in the case of a man out of hospital. Mumps returned 137 admissions, but 92 or two thirds of them were in the Home district, 65 cases being in London and 25 at Caterham; the remaining 45 cases were spread over the remaining districts, the Channel Islands being the only exception; there was consequently no great prevalence in any one of them. Diphtheria caused only 4 admissions and 1 death, as compared with 15 cases and 3 deaths in the previous year. Two cases occurred at Norwich, both of which recovered; one happened at Chatham, its cause could not be traced, paralytic symptoms supervened during its course, but disappeared after a time, and the man ultimately did well; the fourth case, which was fatal, occurred at Aldershot; it is stated to have been very severe, and to have implicated the larynx, trachea, and large bronchi on both sides; the disease is said to have been prevalent during the year in the town and its vicinity.

Constitutional Group.--16,991 admissions and 173 deaths are recorded in this group, and are in the ratios of 204·3 and 2·01 per 1,000 respectively. These are both slightly increased as compared with those corresponding in the preceding year, the former by 10·9 and the latter by ·15 per 1,000, but compared with the average similar rates for the preceding five years, while there was an increase of 26·9 in that of admission there was a decline of ·31 per 1,000 in that of mortality.

Rheumatism shows 3,347 admissions, of which 1,404 were of the acute form; the ratio of admission, 40·3 per 1,000, is almost identical with the average rate, but is above that for the foregoing year by 1·7 per 1,000. The prevalence of rheumatic affections was greatest in the Eastern district, the ratio per 1,000 being 56·7. The rate at Aldershot was 48·0, followed closely by the Southern district with 47·0 per 1,000. The ratios in the Home district, Dublin, and Chatham were close to the above. The lowest ratio occurred in Belfast, 23·4 per 1,000, that for the Channel Islands, 26·5, being next above. The remaining Irish districts, as well as the Western and Woolwich, have moderate ratios of admission. Seven deaths are recorded from acute rheumatism, two at Chatham and one at Manchester, Leicester, Devonport, Aldershot, and Belfast respectively.

Primary Syphilis caused 10,410 admissions to hospital, and secondary syphilis 2,508, the ratios of admission being 125·2 and 30·1 per 1,000 respectively. In the preceding year the admission ratio for primary disease was 116·5 and that for secondary affection 28·5 per 1,000; an increase is therefore observed in both. Compared with the corresponding average rates for the preceding quinquennial period an increase of 29·2 per 1,000 is observed in primary syphilis, and a fractional increase in secondary disease.

Including gonorrhœa and its sequelæ, the admission rate for all forms of venereal diseases, 270·7 per 1,000, shows an increase on that for the previous year of 10·7 per 1,000, and one of 35·0 per 1,000, on the mean rate for the preceding five years. The average number of men constantly non-effective on account of these affections was 1,674, or at the rate of 20·14 per 1,000, which is higher than the rate of inefficiency in 1883 by 1·60 and than that of the average of the previous quinquennial period by 4·17 per 1,000.

The ratios of admission for syphilitic affections vary considerably in the different districts. Those for primary syphilis range from 192·7 in the Channel Islands to 60·5 per 1,000 in the Cork district. Among those districts having the higher rates are Aldershot 187·9, Dublin 174·8, the Curragh 144·2, and Chatham 141·3 per 1,000, while among those with low rates may be noticed—Cork 60·5, Belfast 85·5, South-eastern 87·2, and North British 88·8 per 1,000. Compared with the previous year among those districts in which marked increase of prevalence has occurred may be noticed Chatham, Woolwich, and Aldershot; the Home district, on the other hand, shows a considerable decrease. The greatest prevalence of secondary syphilis was in the Dublin district, 52·6 per 1,000, then the Home district 40·0, and the Northern district 37·5 per 1,000. The Southern, Cork, and Curragh districts show the lowest rates, 20·1, 20·4, and 21·8 per 1,000 respectively.

United Kingdom.

In continuation of the statistical information given in the reports of previous years, the admissions for primary venereal sores and gonorrhœa at certain large stations in the United Kingdom and the rates per 1,000 of the average annual strength are shown in the following table:—

Stations under the Act.

Stations.	Average Annual Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 of the Strength admitted for Primary Venereal Sores.	Ratio per 1,000 of the Strength admitted for Gonorrhœa.
Devonport and Plymouth -	2,210	291	287	132	130
Portsmouth - -	4,355	603	594	138	136
Chatham, Sheerness, and Gravesend.	3,150	445	420	141	133
Woolwich -	4,323	572	377	132	87
Aldershot - - -	9,201	1,729	954	188	104
Windsor - - -	1,001	67	85	67	85
Shorncliffe - -	1,516	138	101	91	66
Colchester - -	2,256	327	238	145	105
Winchester - -	1,154	78	80	67	69
Dover - - -	1,667	128	152	77	91
Canterbury - -	1,259	154	118	122	94
Maidstone - -	177	9	11	51	62
Cork - - -	2,199	205	166	93	75
Curragh - - -	3,391	489	235	144	69
Total of 14 stations under the Act -	37,859	5,235	3,818	138	101

Stations *not* under the Act.

Stations.	Average Annual Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa	Ratio per 1,000 of the Strength admitted for Primary Venereal Sores.	Ratio per 1,000 of the Strength admitted for Gonorrhœa.
Isle of Wight - -	917	51	85	55	93
London - - -	3,987	672	540	168	135
Warley - - -	415	66	77	159	185
Hounslow - - -	841	76	46	90	55
Pembroke Dock - -	809	67	27	83	33
Sheffield - - -	590	125	95	212	161
Manchester - -	771	173	121	224	157
Preston - -	454	39	69	86	152
Edinburgh - -	1,018	110	172	108	169
Fermoy - -	1,179	84	53	71	45
Limerick - - -	1,088	61	69	56	63
Athlone - - -	696	22	46	31	66
Dublin - - -	5,054	1,315	974	260	192
Belfast - - -	816	119	168	146	206
Total of 14 stations *not* under the Act -	18,635	2,980	2,542	160	136

United Kingdom.

These stations were originally chosen for the purposes of comparison upon the principle that it was advisable to take no station where the strength was on an average under 500, that small detachments would produce grave irregularities in the figures, and that it would be unfair to compare very small stations with those in which the Act is in force. With regard to the remaining unprotected stations it may be added that in addition to the limited number of troops at many of them, the greater number are situated in country districts where there is but little prostitution and consequently little or no disease, this also would render comparison unfair.

The group of 14 stations under the Act shows an increase of 28 per 1,000 in the ratio of men admitted for primary venereal sores as compared with the corresponding rate of the preceding year: the contrasted group of 14 stations not under the Act shows a decrease of 28 per 1,000 men.

Stations.	Rate of Admissions into Hospital per 1,000 of Mean Strength for Primary Venereal Sores in—																	
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	* 1874.	* 1875.	* 1876.	* 1877.	* 1878.	* 1879	1880.	1881.	1882.	† 1883.	1884.
evonport and Plymouth.	76	66	74	58	50	59	37	36	29	27	28	34	33	50	51	74	121	132
ortsmouth	116	86	62	51	41	40	44	48	30	27	27	15	27	76	57	61	91	138
hatham and Sheerness.	71	63	41	47	65	40	41	33	17	33	43	49	51	62	63	71	84	141
oolwich -	88	46	52	43	58	60	60	47	59	42	29	38	44	73	63	64	87	132
ldershot -	81	77	63	67	65	62	72	52	46	47	46	53	56	74	100	115	158	188
indsor -	58	136	93	67	78	96	84	63	41	41	80	39	46	106	163	115	81	67
horncliffe	42	77	60	100	30	33	21	14	18	22	21	41	68	86	34	49	94	91
olchester	145	182	85	42	32	55	42	20	32	30	52	19	37	48	85	61	118	145
inchester	52	104	101	61	29	57	27	38	27	20	18	38	23	45	52	66	57	67
over -	132	111	80	30	24	47	38	37	27	30	19	31	36	49	50	28	63	77
anterbury	119	114	45	152	38	43	20	36	12	27	19	27	34	75	86	54	77	122
aidstone	242	122	128	68	44	57	59	66	7	28	34	7	19	43	45	50	24	51
ork -	72	61	73	68	55	62	61	26	21	21	16	36	29	72	53	66	85	93
urragh -	104	85	88	56	35	50	30	46	35	18	38	54	77	124	63	82	136	144
sleofWight	39	103	129	64	66	57	37	89	89	54	51	50	56	69	74	123	114	55
ondon -	163	148	144	160	190	199	185	179	187	146	166	250	173	225	219	184	256	168
arley -	74	92	61	55	57	66	22	32	37	51	59	140	120	67	121	170	171	159
ounslow -	62	106	85	88	45	90	67	68	24	75	48	40	19	117	121	64	76	90
embroke Dock.	28	35	51	54	28	27	25	21	31	29	16	12	15	64	96	70	94	83
heffield -	163	107	146	77	126	98	71	49	87	119	64	96	132	154	279	263	181	212
anchester	177	115	160	92	70	98	91	106	89	113	131	205	205	232	228	287	265	224
reston -	87	87	172	134	75	114	123	97	57	77	77	73	57	98	104	69	55	86
dinburgh	63	46	60	99	69	43	44	25	27	69	47	72	80	75	94	102	97	108
ermoy -	70	47	116	89	33	56	21	10	12	31	29	26	33	94	84	69	61	71
imerick -	117	114	54	136	57	100	78	58	25	47	75	85	28	62	143	81	114	56
thlone -	85	38	42	44	47	14	14	8	10	8	35	29	15	49	36	15	13	31
ublin -	129	139	180	128	117	165	136	95	73	76	103	154	117	216	259	304	265	260
elfast -	89	56	52	43	61	78	103	64	44	57	43	66	124	273	183	131	166	146

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* In October 1873 a Royal Warrant was promulgated, directing that soldiers admitted into hospital on account venereal disease should forfeit their pay whilst under treatment. This Warrant was cancelled by another dated th November 1879.

† In the month of May 1883 a change was made in the working of the Contagious Diseases Acts by the abolition the compulsory examination of women.

United Kingdom.

The results obtained by a different grouping of the stations in the United Kingdom are shown in the following Table :—

Groups.	Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Ratio per 1,000 of the Strength of Admissions for Primary Venereal Sores.
The 14 stations under the Contagious Diseases Act.	37,859	5,235	138
All other stations - -	45,276	5,175	114
Total -	83,135	10,410	125

No admissions for this disease are returned at 15 stations having an aggregate average annual strength of 574 men.

TABLES relating to the CONTAGIOUS DISEASES ACTS, as regards the ARMY, contrasting the Results at 28 Large Stations, 14 under the Act, and 14 not under the Act, selected for comparison with the former, as previously shown, all having a strength of 500 Men and upwards, when the first Act was applied.

I.—TABLES showing the Admissions into Hospital for Primary Venereal Sores and for Gonorrhœa at the 28 Stations above described, from 1860.

Year.	The Fourteen Stations successively brought under the Acts.					Fourteen Large Stations not under the Acts.				
	Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Admissions into Hospital from Gonorrhœa.	Ratio per 1,000 of the Strength.		Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Admissions into Hospital from Gonorrhœa.	Ratio per 1,000 of the Strength.	
				Primary Venereal Sores.	Gonorrhœa.				Primary Venereal Sores.	Gonorrhœa.
1860 - - -	57,479	8,405	7,966	146	139	17,118	2,292	2,374	134	139
1861 - - -	51,328	7,267	7,133	142	139	17,126	2,049	2,023	120	118
1862 - - -	45,322	5,314	6,283	117	139	15,026	1,500	2,070	100	138
1863 - - -	43,419	4,653	5,202	107	120	15,132	1,612	1,816	107	120
Totals for 4 years -	197,548	25,639	26,584	—	—	64,402	7,453	8,283	—	—
Average for 1860-63 -	49,387	6,410	6,646	130	135	16,100	1,863	2,071	116	129
1864 - - -	40,694	4,135	4,803	102	118	14,894	1,647	1,636	111	110
1865 - - -	43,078	4,077	4,937	95	115	14,091	1,418	1,968	101	140
1866 - - -	39,476	3,444	4,573	87	116	14,595	1,154	1,663	79	114
1867 - - -	39,911	3,640	5,274	91	132	20,589	2,372	2,670	115	130
1868 - - -	42,595	3,533	5,685	83	133	19,486	2,130	2,236	109	115
1869 - - -	42,017	2,765	4,466	66	103	17,739	2,273	1,856	128	105
Totals for 6 years -	247,771	21,594	29,738	—	—	101,394	10,994	12,029	—	—
Average for 1864-69 -	41,295	3,599	4,956	87	120	16,899	1,832	2,005	108	119
1870 - - -	41,580	2,268	4,081	55	98	17,852	2,022	1,723	113	96
1871 - - -	54,096	2,763	6,254	51	116	19,957	1,865	2,137	93	107
1872 - - -	50,794	2,752	5,280	54	104	19,950	2,457	2,113	123	106
1873 - - -	48,039	2,420	3,946	50	82	19,801	2,025	1,888	102	95
1874 - - -	48,136	2,039	2,968	42	62	18,874	1,661	1,450	88	77
1875 - - -	48,606	1,717	2,825	35	58	19,573	1,552	1,405	79	72
1876 - - -	48,620	1,622	3,302	33	68	18,790	1,551	1,677	82	89
1877 - - -	52,422	1,809	3,585	35	68	19,076	1,730	2,234	91	117
1878 - - -	55,813	2,235	4,352	40	78	20,749	2,723	2,508	131	121
1879 - - -	42,646	2,005	2,939	47	69	18,058	1,943	1,719	108	95
1880 - - -	44,026	3,280	4,387	74	100	18,054	3,010	2,305	167	128
1881 - - -	39,558	2,920	3,821	74	97	19,613	3,559	2,403	181	122
1882 - - -	41,783	3,275	4,199	78	100	19,419	3,481	2,618	179	135
Totals for 13 years	616,119	31,105	51,939	—	—	249,831	29,582	26,180	—	—
Average for 1870-82 -	47,394	2,393	3,995	50	84	19,218	2,276	2,014	118	105
1883 - - -	38,089	4,172	3,788	110	99	18,274	3,441	2,443	188	134
1884 - - -	37,859	5,235	3,818	138	101	18,635	2,980	2,542	160	136

United Kingdom.

N.B.—For the years 1860–66 inclusive, Windsor has been omitted from the group of stations under the Act, and London from that *not* under the Act, as the returns for those years do not afford the necessary information.

II.—Tables showing the Number of Men always in Hospital with Primary Venereal Sores at the 28 Stations above described, in each Year, from 1870.

Year.	Under the Act.			Not under the Act.		
	Average Annual Strength.	Constantly in Hospital with Primary Venereal Sores.	Ratio per 1,000 of the Strength.	Average Annual Strength.	Constantly in Hospital with Primary Venereal Sores.	Ratio per 1,000 of the Strength.
1870 - - -	41,580	186	4·46	17,852	174	9·74
1871 - - -	54,096	210	3·89	19,957	161	8·07
1872 - - -	50,794	232	4·56	19,950	225	11·29
1873 - - -	48,039	214	4·45	19,801	175	8·86
1874 - - -	48,136	150	3·11	18,879	130	6·89
1875 - - -	48,606	129	2·66	19,573	115	5·88
1876 - - -	48,620	120	2·47	18,790	112	5·94
1877 - - -	52,422	137	2·61	19,076	119	6·23
1878 - - -	55,813	175	3·14	20,749	185	8·90
1879 - - -	42,646	154	3·61	18,058	149	8·25
1880 - - -	44,026	252	5·72	18,054	218	12·07
1881 - - -	39,558	218	5·51	19,643	276	14·05
1882 - - -	41,783	272	6·51	19,449	244	12·54
Total - -	616,119	2,449	—	249,831	2,283	—
Average for 13 years -	47,394	188	3·97	19,218	176	9·16
1883 - - -	38,089	330	8·66	18,274	289	15·81
1884 - - -	37,859	470	12·41	18,635	261	14·01

For the four years (1860–63) preceding that in which the first Contagious Diseases Act was passed, the average rate of prevalence of primary venereal sores at a group of stations, each of which was successively placed under the Act, is 130, and that for gonorrhœa is 135 per 1,000 of the strength. At another group of 14 stations (originally selected for comparison because at the time the stations comprised in it were large ones, that is, had not less than 500 men) the rate of prevalence of primary venereal sores is 116, and that for gonorrhœa is 129 per 1,000 of the strength.

In the next period shown (1864–69) the Act was applied successively at each of the stations in the subjected group; in 1865 it was in operation at three stations, in 1866 at four, in 1867 at five, in 1868 at eight, in 1869 at 10, in 1870 it was in operation at all the 14 stations. During this period the average rate of prevalence of primary venereal sores fell to 87 per 1,000 of the strength, in the subjected group; in the contrasted group of large stations it fell to 108 per 1,000 of the strength. The result, therefore, is that the subjected group of stations which before the application of the Act had a rate of prevalence 14 per 1,000 higher than the unsubjected group, for the period of its partial application, had a rate of prevalence 21 per 1,000 lower than that of the unsubjected group.

In the third period shown (1870–82) the Act was in force for the whole time at every one of the stations in the subjected group, and the average rate of prevalence of the disease was 50 per 1,000 men, an average rate higher by 2 per 1,000 when compared with that for the period 1870 to 1881; in the unsubjected group the rate was 118 per 1,000 men, an average rate higher by 5 per 1,000 when compared with that for the period from 1870 to 1881.

The year 1883 is shown separately, as in it the compulsory examnation of women was abolished; this occurred early in May, so that the full influence of the Act had a duration of about one third of the year, the remainder being under a modified influence. The rate of admission for primary venereal sores in that year was 110 per 1,000 in the subjected districts, and 188 per 1,000 in the unsubjected districts. Compared with the average rates for the previous 13 years an increase is observed in both, being 60 and 70 per 1,000 respectively.

United Kingdom.

During the year under report the modification of the Act was in force throughout, and the rate of admission for primary venereal sores in the subjected districts increased to 138 per 1,000, being 28 higher than in 1883 and 60 higher than in 1882, the last complete year under the full influence of the Act. In the unsubjected districts the rate of admission was 160 per 1,000, which shows a decrease of 28 per 1,000 on the corresponding rate in 1883 and one of 19 per 1,000 on that in 1882.

With regard to gonorrhœa the rate of prevalence in the first years of the Act did not materially differ in the two groups of stations, but in the 13 years, 1870 to 1882, the average rate for the subjected group was 84 per 1,000, and that for the unsubjected 105 per 1,000. In 1883, the year in which the modification of the Act took place, the rate in the subjected districts was 99 per 1,000 and in the unsubjected districts 134 per 1,000. In 1884 the rate for the protected districts was 101, and for the unprotected 136 per 1,000. It will be noticed, therefore, that there is scarcely any difference between these rates and those corresponding in 1883, and also those in 1882.

Table II. shows that during the period of 13 years, from 1870 to 1882, the average ratio per 1,000 always in hospital for primary venereal sores was 3·97 per 1,000 in the subjected districts and 9·16 per 1,000 in the unsubjected districts; and in 1883 these rates rose to 8·66 and 15·81 per 1,000 respectively. In the year now under report, the first complete one under the modified Act, the ratio always in hospital with primary venereal sores has still further increased in the formerly protected districts, being 12·41 per 1,000, but has somewhat decreased to 14·01 in the unprotected districts. Compared with 1883 the increase in the protected districts is 3·75 per 1,000, and the decrease in the unprotected districts 1·80 per 1,000; but, taking the year 1882 as being the last under the full influence of the Act, there is an increase in both classes of districts, amounting to 5·90 per 1,000 in the former and 1·47 per 1,000 in the latter.

Tubercular Diseases caused 624 admissions and 154 deaths, the ratio of the former being 7·5 and of the latter 1·79 per 1,000. Compared with the corresponding rates in the previous year a decrease of 1·0 has occurred in that of admission but a fractional increase in that of mortality, and in comparison with the mean similar rates for five years a decrease is observed in both ratios of 2·6 and ·35 per 1,000 respectively. 468 of the admissions and 141 of the deaths are returned as phthisis pulmonalis, and 111 admissions and 3 deaths as tubercular hæmoptysis. The mortality from these two affections was 25 per cent. of the cases treated; and it is further observed that this mortality is over 31 per cent. of the deaths from all causes.

The rates of prevalence of tubercular diseases vary from 10·8 per 1,000 in the Home district to 3·6 in the Channel Islands. Among districts with high rates of prevalence may be instanced the Western 9·9, Chatham 9·2, and the South-eastern 8·6 per 1,000; and among those with low rates, the Curragh 4·1 and Woolwich 5·2 per 1,000. Mortality was highest in the Western district, 3·57 per 1,000, next in Belfast, 2·87, and in the Eastern, 2·28 per 1,000; it was *nil* in the Channel Islands, in Aldershot ·87, and in Chatham ·95 per 1,000.

Scurvy shows 8 admissions, and *purpura* 13, or 21 in all, as compared with 16 in the previous year. Four cases are returned from Aldershot, 1 of them fatal, 3 each from the Cork and South-eastern districts, 2 from the Western, Southern, and the Curragh districts respectively, and the remainder single cases in various districts.

Other diseases of this group caused 81 admissions and 10 deaths, the ratio of the former being rather below but of the latter rather above the average. The cases comprised 59 of anæmia, 7 of general dropsy, one case fatal, 8 of cancer with 7 deaths, 3 of diabetes, 2 of rodent ulcer, and 2 of hæmophilia, one of which occurred at Canterbury and the other at Cork; a detailed account of the latter case was given in the Appendix to the Army Medical Department Report for 1883.

LOCAL DISEASES.—*Diseases of the Nervous System* caused 887 admissions and 41 deaths, the ratios per 1,000 of strength being 10·7 and ·48 respectively, the former being below and the latter somewhat in excess of the corresponding rate in the previous year, which is also the case in comparison with the similar average rates of five years. The highest rates of prevalence are

United Kingdom.

returned in the South-eastern, Western, and Home districts, being 139·0, 12·9, and 12·8 per 1,000 respectively, while the lowest were in the Channel Islands 6·4, the Curragh 6·8, and Aldershot 7·9 per 1,000. The mortality rate varied between 1·26 per 1,000 in North Britain and 1·00 in the Home district to *nil* at Chatham, the Curragh, and the Channel Islands. The causes of mortality were apoplexy 13 cases, meningitis 10, encephalitis 6, paralysis 3, epilepsy and abscess of brain 2 each, and mania, softening of brain, fibrous tumour of brain, tetanus, and hydrophobia, one case respectively. The case of tetanus occurred at Aldershot, it resulted after a slight wound of the cheek; the case of hydrophobia occurred at Woolwich, the man was admitted at about 1 p.m. and died at 9.30 the next morning. The admissions for mental disease were 188 in number, being in the ratio of 2·26 per 1,000; the ratio of men discharged the service on this account is 1·91 per 1,000.

Diseases of the Eye gave a ratio of admission of 14·7 per 1,000, which is identical with the average rate, though rather below that of the previous year. There is a good deal of variation in the prevalence of ophthalmic affections in the different districts, the ratio varying from 20·0 per 1,000 in the North British, and 17·6 in the Southern, to 10·7 in the Home district, and 8·0 per 1,000 in Woolwich.

Diseases of the Ear show a rate of 6·0 per 1,000, a little above the average rate as well as that of last year. Prevalence ranged from 9·3 in the Channel Islands to 3·6 per 1,000 in the Dublin district.

The admission ratio for *diseases of the nose*, ·5 per 1,000, does not differ from the average rate.

Diseases of the Circulatory System caused 934 admissions and 33 deaths, being in the respective ratios of 11·2 and ·38 per 1,000. Compared with the corresponding ratios for the previous year there is a decrease of prevalence equal to ·9 and of mortality equal to ·18 per 1,000, while compared with similar average rates the decrease equals 3·1 in the former and ·34 in the latter instance. Among the different districts the highest rate of prevalence was 16·0 per 1,000 in Dublin, followed by 15·6 in the Southern, and 15·1 per 1,000 in the South-eastern district; the lowest rate was 5·4 per 1,000 in North Britain, the Belfast and Western districts being next above with 5·7 and 7·9 per 1,000 respectively. Palpitation caused 454 admissions or 48·7 per cent. of the total number; valve disease of heart caused 274 admissions or 29·3 per cent. of the total; 29 cases of hypertrophy of the heart are returned and 10 of aneurism of the aorta. The causes of death were valve disease of heart 16 cases, aneurism of aorta 7, fatty degeneration of heart and syncope 3 cases each, and pericarditis, hypertrophy of heart, atrophy, and rupture of artery, one case respectively.

The admissions for *diseases of the absorbent system* numbered 1,192, being at the rate of 14·3 per 1,000, which exceeds that of the previous year by 2·5 and the average rate by 1·9 per 1,000. The highest admission ratios, 20·3 and 19·6 per 1,000, occurred in the Aldershot and Dublin districts, and the lowest, 9·7 and 8·9, in the Cork and North British districts respectively. Five admissions are returned for diseases of ductless glands.

Diseases of the Respiratory System caused 4,949 admissions and 78 deaths, being in the respective ratios of 59·5 and ·91 per 1,000 of strength. Compared with the return for the preceding year a decline of 3·7 per 1,000 is observed in the rate of prevalence, and one of ·42 in that of mortality, and both rates also contrast favorably with the average ratios for the preceding five years, the decrease in admission rate being 15·1 and that in death rate ·47 per 1,000. The prevalence of respiratory affections was greatest in the Eastern, Dublin, and Home districts, the ratios being 72·3, 66·0, and 65·4 per 1,000 respectively, and least in the districts of Chatham, Channel Islands, and Belfast, the corresponding ratios being 47·6, 47·3, and 44·6 per 1,000. The mortality rates varied from 1·49 per 1,000 to *nil;* the highest rates being in Dublin and the Northern districts, while the Eastern district and Channel Islands return no deaths. As in the preceding year more than three fourths of the admissions were due to bronchial affections; 659 admissions are recorded for pneumonia, or 13 per cent. of the total admissions for respiratory disease, and 369 cases of pleurisy are returned, or rather over 5 per cent. Pneumonia caused 67 deaths, pleurisy 4, bronchitis 3, laryngitis 2, and abscess of lung and empyema one case respectively.

United Kingdom.

Diseases of the Digestive System show 9,806 admissions and 37 deaths, the respective ratios per 1,000 of strength being 118·0 and ·43 per 1,000. The ratio of admission is above the average rate, and above that of the previous year by 8·2 and 8·7 per 1,000 respectively, but the mortality rate shows a slight decrease in both these comparisons. The rate of prevalence in the different districts varies considerably, from 159·8 per 1,000 in the Eastern district to 84·4 in that of Belfast; high rates are also observed in the Southern and South-eastern districts, 155·3 and 132·5 per 1,000 respectively, and comparatively low ones, 96·0 and 97·9 per 1,000, in the Channel Islands and the Curragh. Mortality was highest in the Woolwich district, 1·14 per 1,000, in four districts it was *nil*, and in all the others fractional. 4,237 of the admissions were due to tonsillitis, and 1,643 to dyspepsia; taking these two together they amount to considerably more than half the total admissions for digestive disorders. The admissions for dysentery numbered 99, and those for diarrhœa 824. Hepatic diseases returned 533 cases in all, of which 261, or very nearly half, are recorded as jaundice. The causes of death were varied, hepatic affections show 16 deaths, of which three were cases of abscess of the liver; 5 deaths are returned from enteritis, 3 from peritonitis, 2 each from dysentery and intestinal ulceration, and one from diarrhœa, hernia, splenitis, ascites, gastric ulcer, sloughing sore throat, abscess of pharynx, intussusception, and typhlitis repectively.

Diseases of the Urinary System.—Gonorrhœa and its sequelæ caused 9,592 admissions, or at the rate of 115·4 per 1,000, which is almost identical with the rate in the previous year; it is, however, slightly in excess of the quinquennial average rate. The ratios of admission in the different districts vary from 202·7 per 1,000 in the Channel Islands to 65·7 in the Cork district. Dublin and the Northern districts show high rates, 151·7 and 143·4 per 1,000 respectively, and the Curragh and the South-eastern district low ones, 79·3 and 88·2 per 1,000.

The admissions into hospital for gonorrhœa at specified groups of stations in the United Kingdom are shown in the following table:—

Groups.	Average Annual Strength of the Group.	Admissions into Hospital for Gonorrhœa.	Ratio of Admission per 1,000 of Strength.
The 14 stations under the Contagious Diseases Act -	37,859	3,818	101
The 14 large stations not under the Act - - -	18,635	2,542	136
All other stations not under the Act - - -	26,641	2,402	90
Total - - - -	83,135	8,762	105

Other diseases of the urinary system caused 1,170 admissions and 8 deaths. The ratio of admission was 14·1 per 1,000, and that of death ·09 per 1,000. The admission ratio was higher than in the previous year by ·9, and than the average by 1·8 per 1,000, while the mortality rate shows a decline in both cases. Seven of the deaths were due to Bright's disease, and the remaining one to stricture of the urethra.

Diseases of the Generative System were the cause of 759 admissions, equal to a ratio of 9·1 per 1,000, which is lower than that in 1883 by 1·7 and than the average rate by 2·0 per 1,000.

Diseases of the Organs of Locomotion caused 515 admissions, or 6·2 per 1,000, as compared with 6·5 per 1,000, which is the average rate as well as that of the preceding year. No death is returned under this head.

Diseases of the Cellular Tissue with 2,235 admissions caused a ratio of admission of 26·9 per 1,000, which is a little in excess of the rate in the preceding year, and is also above the average.

The admissions for *diseases of the Cutaneous System* were very numerous, and caused an admission ratio equal to 101·5 per 1,000, which, however, is below the average rate by 10·1 and the previous years by ·8 per 1,000. The Eastern district had the highest rate of prevalence, 143·3 per 1,000, and Woolwich the lowest, 69·3 per 1,000.

Debility caused the admission of 807 men, the ratio per 1,000 being 9·7, which contrasts favourably with 10·5 in the preceding year, and with 10·8, the average rate.

POISONS.—222 admissions and 10 deaths are recorded; the ratio of admission was 2·7 and that of mortality ·12 per 1,000, as compared with 2·1 and ·05 per 1,000 in the preceding year. Both admission and mortality rates are also slightly above the average. The principal cause of admission was of course the abuse of alcohol, and there are returned 141 cases of alcoholic poisoning and 69 of delirium tremens; one death is returned from the former and six from the latter. The remaining 12 admissions were caused as follows: four of poisoning by oxalic acid, of which one case was fatal, all were accidental; three admissions for opium poisoning, two of which were fatal, one being suicidal and the other accidental; the third case was that of a chronic opium eater, who was admitted into hospital and subsequently invalided; there were also returned two admissions for poisoning by carbonic acid gas, one for poisoning by coal gas, and one from poisonous fish and poisonous vegetables respectively; all of these recovered.

INJURIES.—General injuries caused seven admissions and 25 deaths, as compared with six admissions and 45 deaths in the previous year; the mortality from these injuries is also a good deal below the average. Five of the admissions were due to multiple injury, one to burn, and the others to exposure to cold. 20 of the deaths were due to drowning; 3 to asphyxia by obstruction of the air passages, in one case due to pressure of a foreign body in œsophagus, and the others occurring to men in a state of intoxication; 2 deaths were due to multiple injury, resulting in one case from being run over on a railway, and in the other to a fall over some ramparts.

Local Injuries caused 9,263 admissions and 22 deaths, being in the ratios of 111·4 and ·26 per 1,000 respectively; the admission rate is higher by 8·7 and the death rate lower by ·16 per 1,000 than the corresponding rate in the previous year, and compared with quinquennial average ratios an increase of 5·6 per 1,000 has occurred in rate of prevalence, and a decrease of ·06 in that of mortality. The admissions were due to various causes, the cases of contusions, wounds, and sprains being very numerous, and equalled more than three fourths of the total injuries; fractures caused 398 admissions, dislocations 94, burns and scalds 218, blisters of the feet 919, concussion of the brain 12, and gunshot wound 34. Of the 22 deaths one was caused by contusion of head and wound of scalp (homicidal) caused by blows on the head with a short blunt instrument; 6 deaths from fracture, in one case compound fracture of both legs, the man being run over by a railway train; the other five were fractures of the skull, four of which were accidental, and one was suicidal, the man, in addition to cutting his throat, threw himself out of window; 11 deaths occurred from gunshot wound, of these one was homicidal and nine were suicidal, and the remaining one, though not returned as such, appears to have most probably been so also. Two deaths are returned from cut throat, self-inflicted, one from dislocation of the spine, the result of a fall, and one from rupture of the bladder.

Two deaths are returned as cause unknown.

The total number of cases of *suicide* among the troops at home during the year was 15, or ·17 per 1,000 of strength, which is a decline on the ratio in the preceding year of ·04 per 1,000. The modes of suicide were gunshot 9 cases, cut throat 2 cases, poison 2, fracture of skull 1 case, and in the remaining case the mode was not stated. In 11 of the cases no motive is given or could be traced, the remainder being attributed to domestic infelicity, disappointment in love, financial difficulties, and mental despondency respectively. The average age of the suicides was 31 years, and their average length of service 11 years.

Surgical Operations.—Among the operations performed during the year were two amputations of the forearm on account of wounds, one being caused by the accidental explosion of a shell, both gave satisfactory results; three amputations of the thigh, at the middle third; of these two were successful, one case resulting from compound comminuted fracture of the femur, and the other from disease; but in the third case, in which a man was accidentally run over by a train, necessitating also amputation of the other leg, death ensued soon after the operation from shock. Another case of amputation of the leg for gunshot wound was unsatisfactory on account of the supervention of osteopyelitis, this necessitated amputation at the knee joint, which had a successful issue; amputations of the ankle joint and of the tarso metatarsus were also performed, on account of disease, with satisfactory

United Kingdom.

results, as also various amputations of thumbs, fingers, and toes. Excision of the eyeball, necessary on account of injury, was performed in three instances, and the operation for strabismus in two, all of which were successful. Of three operations for strangulated hernia two gave satisfactory results, but in the third case death ensued. In addition to the foregoing various operations are recorded, such as removal of tumours, operations for urethral stricture, fistula in ano, varicocele, &c., in all of which the results were satisfactory.

Invaliding.—During the year 1884 the number of men discharged the service by invaliding was 1,797, being in the ratio of 20·89 per 1,000. As compared with the corresponding rate for the previous year a decrease of ·59 per 1,000 has occurred, and compared with the average rate for the preceding decennial period a decrease of 2·50 per 1,000 is observed.

The principal causes of invaliding, taking them in order of frequency, were diseases of the circulatory system 347 cases, or 4·04 per 1,000; diseases of the nervous system 286 cases, or 3·33 per 1,000; tubercular diseases 235, or 2·73 per 1,000; diseases of the digestive system and debility, of each 161 cases, or 1·87 per 1,000; diseases of the organs of locomotion 98 cases, or 1·14 per 1,000; injuries 87, or 1·01 per 1,000; and rheumatism 85 cases, or ·99 per 1,000. In all other orders of diseases the ratios of invaliding were either fractional or *nil.* Comparing the various invaliding rates with those corresponding in the previous year the differences observed are very slight, the most notable being a decrease of ·74 per 1,000 in tubercular diseases, an increase of ·14 in debility, and one of ·60 in diseases of the nervous system.

Dividing service into quinquennial periods, it is observed that in the first five years, the average strength (taken from the General Annual Return of the Army for 1884) being 55,183, the number invalided (whose service is given) was 944, or at the rate of 17·11 per 1,000; from 5 to 10 years' service, average strength 13,107, the number invalided was 306, or 23·34 per 1,000; from 10 to 15 years, average strength 6,430, the number invalided was 149, or 23·17; from 15 to 20 years' service, average strength 7,030, invalided 287, or 40·82 per 1,000; and over 20 years' service, the average strength being 2,513, and number invalided 66, the ratio was 26·26 per 1,000. Compared with corresponding rates in the preceding year an increase of 4·17 per 1,000 is noticed in invaliding between 5 and 10 years' service, but a decrease in all other periods. The ratios of invaliding in the second and third quinquennial periods in the year under report are very close, and are higher than that in the first period, the ratio in the fourth period is the highest, owing to the number of old soldiers discharged in this way out of a comparatively small strength.

Out of the total number invalided, 944, or 54 per cent., were in the first quinquennial period of service, when the invaliding rate to strength was the lowest, the average strength in that period being more than half the total strength; in the second quinquennial period the per-centage of the total invalided was 17, in the third 9, in the fourth 16, and over 20 years' service 4 per cent.

Invaliding in the first year of service gave a ratio of 14·74 per 1,000, the average strength being 27,680 and the number invalided 408; this number compared with that of the total invalided was at the rate of 23 per cent., both these rates are somewhat higher than those in 1883. Among the chief causes of invaliding in the first year of service were cardiac affections, mental disease, epilepsy, and phthisis pulmonalis. Comparing the relative prevalence of invaliding for each of these causes in the first year of service with that in the whole period of service, it is observed that in the first year the rate of invaliding for heart disease was 3·90 per 1,000, and in the total period of service 3·19 per 1,000. Mental disease caused invaliding in the first year of service at the rate of 2·24 per 1,000, that at all periods being 1·85. Invaliding for epilepsy was relatively more frequent in the first year than in the total period of service, the rates being 1·34 and 1·01 per 1,000 respectively, but in invaliding for phthisis pulmonalis the reverse was the case, the rate in the first year being 1·08 and that in total service 2·48 per 1,000.

The rates of invaliding at different ages were as follows: In an average strength of men under 20 years of age of 22,195 (taken from the Return above quoted) there were 203 men invalided, or 9·14 per 1,000; over 20 years but under 25 years of age, in an average strength of 32,860, there were 657

United Kingdom.

invalided, or 19·99 per 1,000; over 25 but under 30 years, average strength 13,786, invalided 355, the rate per 1,000 being 25·75; over 30 but under 35 years, average strength 7,291, there were 193 or 26·47 per 1,000 invalided; over 35 but under 40 years of age, average strength 6,303, there were 243 or 38·55 per 1,000 invalided; and over 40 years of age, average strength being 1,828, there were invalided 101 men or 55·25 per 1,000. These results show, as did also those for the preceding year, that the rate of invaliding increases with each quinquennial period of age, and rapidly in the later periods of life in the service.

The admissions, deaths, and average number constantly sick in the various military districts are shown in the following table:—

Military Districts.	Average Annual Strength.	Admitted into Hospital.	Died.	Average Number constantly Sick.	Ratio per 1,000 of Mean Strength.			Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					Admitted to Hospital.	Died.	Constantly Sick.		
1. Northern -	9,618	9,139	65	429·33	950·2	6·76	44·63	16·33	17·19
2. Eastern - -	4,369	4,272	15	219·43	977·8	3·43	50·22	18·38	18·80
3. Western - -	5,041	3,856	41	240·67	764·9	8·13	47·74	17·47	22·84
4. Southern - -	7,855	7,193	35	374·84	915·7	4·45	47·71	17·47	19·07
5. Chatham - -	3.150	2,661	12	155·67	844·7	3·81	49·41	18·09	21·41
6. South-eastern -	5,554	4,869	23	280·00	876·7	4·14	50·41	18·45	21·04
7. Home - -	7,021	6,317	44	363·93	899·7	6·26	51·83	18·97	21·08
8. Woolwich -	4,373	3,100	25	264·56	708·8	5·72	60·50	22·14	31·23
9. Aldershot -	9,201	8,479	37	512·72	921·5	4·02	55·72	20·39	22·13
10. North British -	3,165	2,510	17	114·40	793·0	5·37	36·14	13·23	16·68
11. Channel Islands	1,396	1,357	2	69·97	972·0	1·43	50·12	18·34	18·87
12. Belfast - -	2,783	1,882	15	96·40	676·2	5·39	34·64	12·68	18·75
13. Dublin - -	8,048	8,160	58	489·63	1013·9	7·20	60·84	22·26	21·96
14. Cork - -	8,170	5,892	34	286·41	721·2	4·16	35·06	12·83	17·79
15. Curragh - -	3,391	2,657	7	161·18	783·6	2·06	47·53	17·39	22·20
Detached from the Corps.	2,878	—	29	—	—	10·07	—	—	—
Total - -	86,013	72,344	459	4,059·14	870·2	*5·33	48·82	17·87	20·53
Average of 10 years, 1874–83.	—	—	—	—	840·2	7·53	42·79	15·62	18·59

* Calculated on strength, including men detached.

In this table it is observed that the highest ratio of admission to hospital per 1,000 of mean strength occurred, as it did in the preceding year, in the Dublin district, and reached 1013·9, which is equal to rather more than every man being in hospital once during the year; this ratio is higher than that

United Kingdom.

corresponding in 1883 by 14·6 per 1,000; the lowest rate 676·2 per 1,000 occurred in Belfast. Between these limits the different districts are seen with varying rates, among the higher being the Eastern, 977·8; the Channel Islands, 972·0; and the Northern, 950·2 per 1,000; and among the lower being Woolwich, 708·8; Cork, 721·2; and Western, 764·9 per 1,000. Mortality was greatest in the Western district, 8·13 per 1,000, and lowest in the Channel Islands, 1·43; Dublin, the Northern and Home districts had comparatively high rates, and the Curragh, Eastern, and Chatham districts low ones. The highest rate constantly sick was 60·84 per 1,000 in the Dublin district, closely followed by Woolwich with 60·50; Aldershot being next with 55·72 per 1,000; the lowest rate, 34·64 per 1,000, was in Belfast, the next above, 35·06, in Cork, and then 36·14 per 1,000, in the North British district. The longest average sick time to each soldier was 22·26 days in the Dublin district, and the shortest, 12·68 days, in the Belfast district. The average duration of each case of sickness was longest in Woolwich, being 31·23 days, the next shorter being the Western district, with 22·84 days, while the shortest duration is found in the North British district, 16·68 days.

The following table, compiled from the returns of Principal Medical Officers, shows the admissions, deaths, number of men invalided, and number constantly sick, from each arm of the service, with the ratios per 1,000 of the strength and the corresponding ratios for the previous 10 years :—

Arms of the Service.	Average Strength.	Admitted into Hospital.	Died.	Discharged as Invalids.	Average Number Constantly sick.	Annual Ratios per 1,000 of Strength.				Average of 10 Years. 1874–83.			
						Admitted.	Died.	Invalided.	Constantly Sick.	Admitted.	Died.	Invalided.	Constantly Sick.
Household Cavalry	1,218	826	5	29	42·86	678·1	4·10	23·81	35·19	639·6	4·76	19 53	31·38
Cavalry - -	8,979	8,481	40	208	466·76	944·5	4·45	23·16	51·98	912·2	6·03	31·97	44·85
Royal Artillery -	14,809	11,582	72	349	719·57	782·0	4·86	23·57	47·48	773·2	8·46	26·01	40·18
Royal Engineers -	2,646	1,700	23	55	93·61	642·5	8·69	20·79	35·38	576·6*	7·34	17·86	29·34†
Foot Guards -	5,217	5,273	28	111	300·15	1010·7	5·37	21·28	57·53	926·7	7·28	22·73	48·35
Infantry - -	34,057	31,485	162	654	1812·82	924·5	4·76	19·20	53·23	843·8	7·03	27·70	40·33
Regimental Depôts	11,416	9,804	98	271	415·28	858·8	8·58	23·74	36·38	885·0	11·93	37·85	40·24
Garrison Staff and Departments.	4,793	3,193	31	75	208·09	666·2	6·47	15·65	43·42	556·9*	8·32	14·90	34·05†

* For seven years only. † For five years only.

From the above table it is observed that the highest admission ratio occurred in the Foot Guards, 1010·7 per 1,000, and the lowest, 642·5 per 1,000, in the Royal Engineers. Mortality was greatest in the Royal Engineers, the ratio being 8·69 per 1,000, and least in the Household Cavalry, 4·10 per 1,000. The Household Cavalry shows the maximum rate of invaliding, 23·81, and the Staff and Departments the lowest, 15·65 per 1,000. The greatest ratio constantly non-effective through sickness is found in the Foot Guards, 57·53, and the least in the Royal Engineers, 35·38 per 1,000. It will be observed that in the previous year as well as in the average of the preceding 10 years the Foot Guards show the highest ratio of admission and constant inefficiency through sickness, while the lowest rates occurred either in the Royal Engineers or in the Staff and Departments. Mortality and invaliding which in the year under report were highest in the Royal Engineers and Household Cavalry respectively were in the previous year as well as on the average highest in the Regimental Depôts.

Compared with the results for the preceding year a decrease of admission rate has occurred in the Foot Guards and Regimental Depôts, but an increase is observed in all other arms of the service. Mortality declined in the

United Kingdom.

Artillery, Foot Guards, Infantry, and Regimental Depôts, but increased in the remainder. There was a decrease in invaliding in the Depôts and in the Infantry, but in all other arms there was an increase, though only fractional in some. The rate of constantly sick is increased in all arms except the Foot Guards and Regimental Depôts. In comparison with decennial average ratios that of admission has increased in all arms of the service except Regimental Depôts, while that of mortality has declined in all except in the Royal Engineers. Invaliding has increased in the Household Cavalry, in the Royal Engineers, and Garrison Staff, but decreased in the remainder, and the rate of constant inefficiency is greater in all arms of the service except in Regimental Depôts.

The most important of the health statistics of the various corps which served in the United Kingdom during the year will be found in Abstract XLI.

In Abstract P. are given tables showing the admissions and deaths in the different classes and orders of diseases among officers, women, and children during the year, compiled from the annual returns of Principal Medical Officers.

Officers.—The average strength, as gathered from the annual returns, was 3,431, the attacks of illness 1,027, and deaths 14. The rate of prevalence of sickness was 299·3, and that of mortality 4·08 per 1,000, the former being lower by 20·5 and the latter higher by ·64 per 1,000 than the corresponding rate in the preceding year.

In the *febrile group* of diseases there were 89 attacks of illness, being in the rate of 26·0 per 1,000, which is a decrease of 14·0 from that in 1883. No death is returned.

Scarlet fever occurred in 8 cases, and measles in 7 cases. Two attacks of enteric fever are recorded, or ·6 per 1,000 as compared with 3·1 in the previous year. Other continued fevers caused a rate of prevalence of 10·5, paroxysmal fevers 5·5, and other diseases of this group 4·7 per 1,000.

In the *constitutional group* of diseases, out of 104 attacks of illness, 84 were due to different forms of rheumatism, and were in the ratio of 24·5 per 1,000, which differs only fractionally from that in the preceding year. Eleven of the cases were of the acute variety.

No instance of tubercular affection is recorded, and the remainder of the illnesses of this group were a few cases of syphilis and one of mumps.

Local Diseases.—Diseases of the nervous system show 38 attacks of illness, or 11·1 per 1,000, which is an increase of 3·4 on the rate in the foregoing year; 32 of the cases were due to neuralgia, 2 to mental affection, 2 to apoplexy, one case fatal, and one to paralysis and epilepsy respectively; 8 cases only of affections of the circulatory system are recorded, and of these four were due to palpitation; 3 deaths occurred, one from valve disease of the heart, one from fatty degeneration, and one from syncope. The rate of prevalence of respiratory affections was 38·2 per 1,000, a decline of 9·6 from the last year's report. Bronchial affections caused five sixths of the illness, but there were a few cases of pneumonia and pleurisy. Three deaths are recorded, two from pneumonia and one from bronchitis. Digestive disorders were at the rate of 61·8 per 1,000, which is slightly below that in the preceding year. The principal causes of illness were tonsillitis, dyspepsia, diarrhœa, and hepatic affections. The deaths numbered three, and were due to hæmatemesis, abscess of the liver, and obstruction of the bowel respectively. The attacks of urinary diseases were not very numerous, but included three cases of Bright's disease. The remaining orders of local affections do not call for individual mention, but one death is recorded from necrosis.

217 instances of local injury are returned, and one death; the rate of prevalence, 63·2 per 1,000, is slightly increased as compared with the previous year.

A case of suicide by poisoning by cyanide of potassium is reported, and one in which the mode was not stated, the verdict in each instance was one of suicide while in a state of temporary insanity.

Women.—The average strength, as taken from the annual returns, was 9,206, the number of attacks of illness, exclusive of cases of parturition, 3,215, and the number of deaths 66. The rate of prevalence of sickness was therefore 349·2 per 1,000, and that of mortality 7·17 per 1,000, the former being lower

United Kingdom.

than the corresponding rate in the preceding year by 30·8, and the latter higher by ·90 per 1,000.

There were 170 attacks of *febrile* disorders, or at the rate of 18·5 per 1,000, and 6 deaths, or ·65 per 1,000, both rates showing a slight increase as compared with those of the preceding year.

Eruptive Fevers caused 32 cases, 7 being scarlet fever and the remainder measles.

Enteric Fever caused 10 admissions and one death, as compared with 7 admissions and 3 deaths in the previous year; 8 of the cases occurred in Ireland, 4 in the Dublin district.

Other continued fevers caused 57 cases, and paroxysmal fevers 30 cases with one death, returned as ague. Other febrile diseases numbered 41, among them were 7 cases of puerperal fever with 4 deaths, 22 of erysipelas, and one of pyæmia.

Diseases of the Constitutional Group caused 306 attacks of illness and 25 deaths, being in the rates of 33·2 and 2·72 per 1,000 respectively. Compared with those of the preceding year a decrease of 5·5 per 1,000 is observed in the rate of prevalence, but an increase of ·52 is observed in that of mortality. Rheumatism in some form accounts for 140 of the cases, of which 59 are returned as rheumatic fever, but no death occurred.

Tubercular Diseases show 90 cases, or 9·8 per 1,000. Of these, 79 were cases of phthisis pulmonalis, among which there were 23 deaths, or 2·50 per 1,000.

Among 56 cases of other diseases, chiefly anæmia, were three cases and two deaths from cancer.

Local Diseases.—There were 167 cases and 4 deaths from diseases of the nervous system, being in the respective ratios of 18·1 and ·43 per 1,000; the former being lower and the latter slightly above the corresponding rate in the preceding year. The great majority of the cases were due to neuralgia. The deaths were due to meningitis and apoplexy, two cases respectively.

Affections of the Circulatory System gave a rate of 8·2 per 1,000, which is an increase of 2·8 on the rate in the last report. Among the 76 cases were 33 of palpitation, 12 of valve disease of the heart, and two of aortic aneurism. Four deaths occurred, and the causes were valve disease, two cases, and angina pectoris and aneurism of the aorta in one case respectively. Respiratory diseases caused 506 cases of sickness, being at the rate of 55·0 per 1,000, which differs but very slightly from the rate in 1883. Nine deaths occurred. Six sevenths of the cases were due to bronchial affections, and of the remainder 21 were due to pneumonia, 19 to asthma, and 32 to pleurisy. Of the deaths 6 were caused by pneumonia and 3 by bronchitis.

Diseases of the Digestive System caused the largest amount of sickness, the cases numbering 789, or 85·7 per 1,000, which, however, has declined by 10·0 as compared with the similar rate in the preceding year. The diseases were very varied, but nearly half were due to tonsillitis, dyspepsia, and diarrhœa. Hepatic affections caused 26 cases and dysentery 16, of the latter 2 cases were fatal. There was also one death from gastric ulcer. Urinary affections caused but little sickness, there were, however, 4 attacks of Bright's disease of which one was fatal.

Diseases of the Generative System show 402 cases, being at the rate of 43·7 per 1,000 as compared with 47·0 in the preceding year. There were 9 deaths. 236 of the cases were dependent on affections connected with pregnancy and parturition, being in the rate of 25·6 per 1,000. Among the cases were 92 of abortion, 30 of hæmorrhage, 7 of premature labour, and 2 of puerperal mania. The deaths are returned as metro-peritonitis 2, metritis 1, hæmorrhage 1, rupture of uterus 1, and childbirth 4 cases.

Debility records 529 cases, or 57·5 per 1,000 as compared with 62·1 per 1,000 in the year 1883. Three deaths are shown under this head.

Injuries are returned in 56 cases, equal to a rate of 6·1 per 1,000, chiefly contusions, sprains, and wounds; among the latter was one case self-inflicted. One death is returned under gunshot wound, and was due to the accidental discharge of a revolver.

Children.—The average strength as shown in the annual returns was 16,319, the attacks of illness 7,014, and the deaths 451. The rate of prevalence of sickness was consequently 429·8 and that of mortality 27·63 per 1,000. Compared with the results for the preceding year an increase of 48·0 per 1,000 has occurred in the former and one of 4·72 per 1,000 in the latter ratio.

United Kingdom.

In the *febrile group* of diseases there were 2,011 attacks of illness and 69 deaths, being in the ratios of 123·2 and 4·23 per 1,000 respectively, as compared with 94·3 and 3·92 per 1,000 in the preceding year. The increase in both these rates is due to the prevalence of measles. Among eruptive fevers were 7 cases of small-pox, but none fatal. Measles caused 995 attacks of illness and 17 deaths, the ratios of prevalence and mortality being 60·9 and 1·04 per 1,000 respectively, as compared with 37·7 and ·57 per 1,000 in 1883. The rates of attack and mortality from scarlet fever, 14·4 and 1·28 per 1,000, differ only fractionally from those in the preceding year. Enteric fever occurred in 4 cases, all of which recovered, against 8 cases and 1 death in the foregoing year. Other continued fevers were in the ratio of 14·7 per 1,000, and caused two deaths, while paroxysmal fevers were only at the rate of 2·1 per 1,000, and no fatal case occurred. Among 372 cases of other diseases of the febrile group, and 28 deaths, equal to ratios of 22·8 and 1·72 per 1,000 respectively, were 19 cases of diphtheria and 8 deaths, six of the cases occurred in Aldershot, four in Woolwich, three each in the Home and Southern districts, and the remainder, single cases, in the Belfast, Dublin, and Cork districts. The mortality to attacks, which in the previous year was found to be 24 per cent., has risen in that under report to 42 per cent. Hooping cough was in the rate of prevalence of 18·2 per 1,000, and caused 18 deaths. Erysipelas caused 15 cases of sickness and 2 deaths, and 38 cases of mumps are returned.

Constitutional diseases caused comparatively little sickness, 201 cases only, but there were 45 deaths, the ratios per 1,000 being 12·3 and 2·76 per 1,000 respectively as compared with 9·7 and 1·65 per 1,000 in the preceding year. 31 cases of rheumatism are returned, and one death from rheumatic fever. A few cases of syphilitic affections are returned, but tubercular diseases caused the greatest amount of sickness in this group. The number of attacks was 135 with fatal results in 37 instances, the ratios being 8·3 and 2·28 per 1,000. Among the cases were 25 of tabes mesenterica with 14 deaths, 19 of tubercular meningitis with 11 deaths, 61 of scrofula, 5 cases fatal, and 23 of phthisis pulmonalis, and 7 deaths. Of other diseases of this group there were 3 fatal cases, 2 from general dropsy and 1 from anæmia.

Among *local diseases* are shown under the head of diseases of the nervous system 216 attacks and 97 deaths, being in the ratios of 13·2 and 5·94 per 1,000; these, however, show only fractional differences as compared with the corresponding rates in the previous year. More than half the cases and deaths were due to convulsions, the numbers being 132 and 67 respectively; meningitis and encephalitis caused 40 cases and 25 deaths, the remainder being due to various causes. Ophthalmic affections were not very numerous, the ratio being 8·2 per 1,000.

Diseases of the Circulatory System caused only 11 cases, but two deaths occurred from cardiac affections. Respiratory diseases caused a large number of attacks of illness and deaths, 1,802 and 104 respectively, the ratios being 110·4 and 6·37 per 1,000; both are increased as compared with those of the previous year, 102·7 and 4·62. Bronchial affections caused a very large amount of sickness, 1,662 cases and 71 deaths; pneumonia, pleurisy, and croup caused 8, 9, and 16 deaths respectively. Digestive disorders numbered 1,400, and there were 69 deaths, being in the respective ratios of 85·8 and 4·23 per 1,000, being increased as compared with last year by 12·6 and 1·38 per 1,000 respectively. Diarrhœa, teething, tonsillitis, and dyspepsia were the principal causes of sickness, and the deaths were due to diarrhœa in 38 cases, teething 12, enteritis 5, peritonitis 3, dysentery 2, and other diseases in single instances. By the remaining orders of local diseases no great amount of sickness was caused; cutaneous affections, however, were in the ratio of 26·6 per 1,000. Seven deaths were caused by abscess and three by diseases of the organs of locomotion.

Under the head of debility were 396 admissions and 49 deaths, their ratios per 1,000 were 24·3 and 3·00 per 1,000. One admission on account of carbolic acid poisoning is shown, and one fatal case of multiple injury, in which a child was run over by a traction engine. 233 instances of local injury are recorded, being at the rate of 14·3 per 1,000. Contusions were the most numerous, followed closely by wounds, and burns and scalds. Three deaths are recorded, two resulting from fractures and one from burns.

United Kingdom.

VACCINATION.

The following table shows the conditions as to vaccination of all recruits found fit for the service during the year, both those inspected by medical officers, and those who, having been primarily inspected by civil medical practitioners, were approved on secondary inspection by medical officers. The proportion per 1,000 of each condition is also shown in the table :—

—	Number of Recruits found fit for the Service.	Proportion per 1,000.
Had marks of vaccination - -	35,767	917·2
Had marks of small-pox - -	1,085	27·8
Had neither marks of small-pox nor marks of vaccination - -	2,058	52·8
Not stated - - - -	84	2·2
Total - -	38,994	1000·0

As compared with the results for the previous year a decrease of 2·1 per 1,000 is observed among recruits bearing marks of vaccination, and one of 1·1 per 1,000 in those bearing marks of small-pox, but among those bearing neither marks of small-pox nor marks of vaccination an increase of 2·3 per 1,000 is noted.

The following tables compiled from the annual returns show the number of vaccinations performed during the year with the proportions per 1,000 of successful or modified vaccinations, and failures when vaccinated with fresh or preserved lymph.

United Kingdom.

Results.	Vaccinated during the period.						Proportion per 1,000.					
	Arm to Arm.		From Preserved Lymph.		Total.		Arm to Arm.		From Preserved Lymph.		Total.	
	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.
TABLE I.—*Recruits.*												
A perfect vaccine pustule - - - -	129	5,661	334	8,202	463	13,863	732·9	473·6	452·6	400·8	506·6	427·7
A modified vaccine pustule - - - -	33	4,355	239	6,200	272	10,555	187·5	364·3	323·8	303·0	297·6	325·6
A failure - - - - - - - -	14	1,937	165	6,061	179	7,998	79·6	162·1	223·6	296·2	195·8	246·7
Total - - - - - -	176	11,953	738	20,463	914	32,416	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0
TABLE II.—*Soldiers other than Recruits.*												
A perfect vaccine pustule - - - -	1	233	2	387	3	620	1,000·0	216·8	250·0	279·8	333·3	252·2
A modified vaccine pustule - - - -	—	517	2	457	2	974	—	480·9	250·0	330·4	222·2	396·3
A failure - - - - - - - -	—	325	4	539	4	864	—	302·3	500·0	389·8	444·5	351·5
Total - - - - - -	1	1,075	8	1,383	9	2,458	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0
TABLE III.—*Soldiers and Recruits.*												
A perfect vaccine pustule - - - -	130	5,894	336	8,589	466	14,483	734·5	452·4	450·4	393·2	504·9	415·3
A modified vaccine pustule - - - -	33	4,872	241	6,657	274	11,529	186·4	374·0	323·1	304·7	296·8	330·6
A failure - - - - - - - -	14	2,262	169	6,600	183	8,862	79·1	173·6	226·5	302·1	198·3	254·1
Total - - - - -	177	13,028	746	21,846	923	34,874	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0

United Kingdom.

The first table shows the vaccinations performed on recruits only, the second those on soldiers other than recruits, and the third comprises both the foregoing or the total amount of vaccination in the army among the soldiers.

The entire number of men vaccinated during the year amounts to 35,797, an increase of 1,063 on the number in 1883, which is due to the greater number of recruits vaccinated.

Taking the vaccinations of recruits shown in Table 1, and comparing them with the results in the previous year, it is observed that in arm to arm primary vaccination a decrease of 34 · 0 per 1,000 has taken place in the proportion of modified vaccine pustules, and an increase of 18 · 1 and 15 · 9 per 1,000 respectively in perfect vaccine pustules and failures. In arm to arm re-vaccination an increase of 14 · 3 and 30 · 6 per 1,000 respectively has taken place in the proportions of perfect vaccine pustules and failures, but a decrease in that of modified vaccine pustules of 44 · 9 per 1,000.

In primary vaccination from preserved lymph a decrease of 61 · 2 per 1,000 has taken place in the proportion of modified vaccine pustules, but an increase of 5 · 1 and 56 · 1 per 1,000 respectively in the proportion of perfect vaccine pustules and of failures. In re-vaccination an increase of 10 · 8 per 1,000 in the proportion of perfect vaccine pustules, and one of 27 · 1 per 1,000 in the proportion of modified vaccine pustules, is counterbalanced by a decrease of 37 · 9 per 1,000 in the proportion of failures.

In the total results of primary vaccination among recruits a decrease of 13 · 4 per 1,000 and one of 43 · 0 have taken place in the proportion of perfect and modified pustules respectively, and an increase of 56 · 4 per 1,000 in the proportion of failures. The total results of re-vaccination as compared with 1883 show an increase of 10 · 5 per 1,000 in the proportion of perfect vaccine vesicles, and a decrease of 2 · 8 and 7 · 7 per 1,000 respectively in the proportions of modified pustules and of failures.

Among soldiers other than recruits primary vaccinations were so rarely performed as to render a comparison with results in the former year needless. In arm to arm re-vaccination a decrease in the proportion of perfect vaccine vesicles is observed, amounting to 46 · 3 per 1,000, this is counterbalanced by an increase of 20 · 9 in the proportion of modified results and by one of 25 · 4 per 1,000 in that of failures. In re-vaccination with preserved lymph an increase of 31 · 8 per 1,000, occurred in the proportion of perfect vesicles and one of 35 · 2 in that of failures, while the proportion of modified vesicles shows a decrease of 67 · 0 per 1,000. In the total results of re-vaccination a decrease of perfect results occurred in the proportion of 6 · 7 per 1,000, and a decrease of modified results in the proportion of 46 · 2, but an increase of 52 · 9 per 1,000 in failures.

Taking all classes of soldiers together the total results of primary vaccination were as follows: a decrease of 7 · 2 per 1,000 in the proportion of perfect vaccine pustules, one of 46 · 1 in that of modified pustules, and an increase of 53 · 3 per 1,000 in failures. In re-vaccination the results show an increase of 12 · 7 per 1,000 in perfect vesicles, and a decrease of 8 · 3 in modified vesicles, also a decrease of 4 · 4 per 1,000 of failures.

Women.—Four cases of primary vaccination and 242 of re-vaccination are returned. The number of the former is too small to be of use for comparison, but of the latter the results showed that 242 women were re-vaccinated with perfect results in 131 cases or 541 · 3 per 1,000, with modified results in 62 cases or 256 · 2 per 1,000, and with failures in the remainder.

Children.—2,968 children were primarily vaccinated, 2,643 cases being successful and 325 failures, being in the proportions of 890 · 5 and 109 · 5 per 1,000, the proportion of successful cases showing a slight decrease, 15 · 5 per 1,000, and that of failures a similar increase, as compared with results in the previous year. Out of 1,474 arm to arm primary vaccinations, 1,414, or 959 · 3 per 1,000, were successful and the remainder failures, and of 1,494 vaccinations with preserved lymph, 1,229, or 822 · 6 per 1,000, succeeded, while the remainder failed.

Re-vaccination was performed in 153 cases with successful results in 114, or 745 · 1 per 1,000, and failures in 39, or 254 · 9 per 1,000, differing but very slightly from the corrresponding results in 1883.

United Kingdom.

Out of 82 arm to arm re-vaccinations, 71, or 865·9 per 1,000, were successful, the remainder being failures; and out of 71 re-vaccinations with preserved lymph, 43, or 605·6 per 1,000 succeeded, while the remainder failed.

The total number of vaccinations performed on children is 3,121, with successful results in 2,757 instances, or in the proportion of 883·3 per 1,000 cases, slightly lower than that in preceding year.

Small-pox.—Among men there were 10 cases and no deaths in the United Kingdom. In India there were 77 cases and 8 deaths, and in the Colonies one case. In Egypt there were 25 cases and one death. Among women there were no cases in the United Kingdom or the Colonies, but 17 with 3 deaths in India. Among children there were 7 cases in the United Kingdom, none in the Colonies, but 28 and one death in India. The total numbers are, among men, 113 attacks and 9 deaths. Among women, 17 attacks and 3 deaths, and among children, 35 attacks and one death.

The ratio of attacks to strength are, therefore, for men ·67 per 1,000; for women 1·23 per 1,000 and for children 1·39 per 1,000; and the ratios of mortality to strength are for men ·05 per 1,000, for women ·21 per 1,000, and for children ·03 per 1,000.

United Kingdom.

On the Recruiting of the Army.

The number of recruits inspected during the year, as gathered from the Annual Returns, was 66,882; of which 38,994 were passed as fit for the service and 27,888 were rejected as unfit, being in the ratios of 583·03 and 416·97 per 1,000 respectively.

Out of the total number inspected 55,732 were examined by Army Medical Officers only, of these 32,588, were found fit for service, being in the ratio of of 584·73 per 1,000, and 23,144, or 415·27 per 1,000, were rejected as unfit.

The remainder of the total number inspected, 11,150, were primarily examined by Civil Medical Practitioners, and 1,974, or 177·04 per 1,000, were then rejected by them, the rest being referred to Army Medical Officers for secondary inspection, with the result that 2,516 more men, or 225·65 per 1,000, were rejected, leaving 6,660, or 597·31 per 1,000, as approved.

To the total number of rejections thus obtained must be added those of 254 recruits, equal to 3·79 per 1,000 of the total number inspected, who were found medically unfit for service within three months of their enlistment under Section XIX., paragraph 255*g*, Queen's Regulations and Orders for the Army.

As compared with the return for the previous year the total proportion of men passed fit for the service is less by 20·00 per 1,000, the total proportion of rejections being consequently greater by the same amount.

The following table shows the number inspected, the number rejected, and the ratios of rejections per 1,000 examined:—

TABLE I.

Examined by	Number of Recruits Inspected.	Number Rejected				Total found fit for service.
		On Inspection.	On Secondary Inspection by Army Medical Officers.	Unfit within three months of enlistment.	Total Rejected.	
Army Medical Officers	55,732	23,144	—	254	27,888	38,994
Civil Medical Practitioners	11,150	1,974	2,516			
Total	66,882	25,118	2,516	254	27,888	38,994

Examined by	Ratio of Rejections per 1,000 inspected.				Ratio of those found fit per 1,000 Inspected.
	On Inspection.	On Secondary Inspection by Army Medical Officers.	Unfit within three months of enlistment.	Total Rejected.	
Army Medical Officers	415·27	—	3·79	416·97	583·03
Civil Medical Practitioners	177·04	225·65			
Total	375·56	225·65	3·79	416·97	583·03

Compared with the corresponding rates for the preceding year an increase of 15·16 per 1,000 has taken place in the proportion of rejections of recruits inspected by Army Medical Officers only, one of 18·00 per 1,000 in the proportion of rejections of recruits primarily inspected by Civil Medical Practitioners, and one of 24·19 per 1,000 in that of recruits secondarily inspected by Medical Officers. There is also a fractional increase in the proportion of rejections of recruits within three months of enlistment.

United Kingdom.

The native countries of recruits, the ratios of rejections, and the proportion per 1,000 furnished by each country are given in the following table:—

TABLE II.

Native Countries of Recruits.	Examined by Army Medical Officers.		Primarily Examined by Civil Medical Prac-titioners.		Rejected on Secondary Inspection.	Unfit within three months of enlistment.	Total.		Ratio Rejected per 1,000 Inspected.	Proportion per 1,000 Recruits furnished by each Country.
	Inspected.	Rejected.	Inspected.	Rejected.			Primarily Inspected.	Rejected at Primary and Secondary Inspections and as unfit within three months of enlistment.		
England and Wales	41,649	17,506	8,737	1,659	1,981	189	50,386	21,335	423·43	753
Scotland - -	5,461	2,503	997	56	252	29	6,458	2,840	439·77	97
Ireland - -	7,962	2,907	1,346	252	269	36	9,308	3,464	372·15	139
British Colonies and Foreign Countries -	660	228	69	6	14	—	729	248	340·19	11
Not stated -	—	—	1	1	—	—	1	1	—	—
Total -	55,732	23,144	11,150	1,974	2,516	254	66,882	27,888	416·97	1,000

As compared with the results for the previous year, the ratio of rejections of recruits born in England and Wales is increased by 22·05 per 1,000, of those born in Scotland by 39·76, and of those born in British Colonies and foreign countries by 34·63 per 1,000, but of recruits born in Ireland the ratio of rejections is reduced by 2·35 per 1,000. The proportion per 1,000 of recruits born in England and Wales is lower than that for the preceding year by 20, but of those born in Scotland the proportion is higher by 6, and of those born in Ireland by 14. There is no change in the proportion of recruits born in British Colonies or foreign countries.

The following table shows among 65,216 recruits, the number inspected for each arm of the service, the number rejected, the ratios of rejections, and the proportion for each arm of the service per 1,000 inspected. For 1,666 recruits, the balance of the total inspected, no information of this nature is forthcoming, as they are shown in the returns under the head of inspected for the army, corps not stated:—

TABLE III.

Arms of the Service.	Examined by Army Medical Officers.		Primarily Examined by Civil Medical Prac-titioners.			Unfit within three months of enlistment.	Total.		Ratio of Rejections per 1,000 of Recruits Inspected for each Arm of the Service.	Proportion for each Arm of the Service per 1,000 inspected.
	Inspected.	Rejected.	Inspected.	Rejected at primary Inspection.	Rejected at second-ary In-spection.		Inspected.	Rejected.		
Household Cavalry -	423	154	12	1	4	1	435	160	367·82	7
Cavalry of the Line -	5,034	1,916	855	148	215	25	5,889	2,304	391·24	90
Royal Artillery -	6,415	2,468	1,465	271	318	22	7,880	3,079	390·74	121
Royal Engineers -	1,239	427	268	34	52	14	1,507	527	349·70	23
Foot Guards - -	2,494	885	482	93	105	67	2,976	1,150	386·43	45
Infantry Regiments -	36,196	15,525	7,940	1,410	1,782	119	44,136	18,836	426·77	677
Departmental Corps	2,265	854	128	17	40	6	2,393	917	383·20	37
Total - -	54,066	22,229	11,150	1,974	2,516	254	65,216	26,973	413·59	1,000

As compared with the results for the previous year, the ratio of rejections, of recruits is higher for the Cavalry of the Line by 6·94 per 1,000, for the

United Kingdom.

Royal Artillery by 8·25, for the Foot Guards by 71·82, and for the Infantry by 19·84 per 1,000, but it is lower for the Household Cavalry by 14·53 per 1,000, for the Royal Engineers by 2·95, and for the Departmental Corps by 49·18 per 1,000. The proportion of recruits for each arm of the service per 1,000 inspected is higher than in the preceding year for the Household Cavalry by 1, for the Cavalry of the Line by 4, for the Royal Artillery by 13, for the Royal Engineers by 2, and for the Departmental Corps by 10, but is lower for the Foot Guards by 7, and for the Infantry by 23.

The occupations of recruits before enlistment, the ratio rejected per 1,000 inspected in each group of occupations, and the proportion of each group in 1,000 recruits inspected are shown in the subjoined table:—

TABLE IV.

Occupations of Recruits.	Number Inspected.	Number Rejected.	Ratio rejected per 1,000 Inspected.	Proportion of each Group in 1,000 recruits Inspected.
1. Labourers, Servants, Husbandmen, &c.	42,346	18,048	426·20	633
2. Manufacturing Artizans (as Clothworkers, Weavers, Lace Makers, &c.).	8,408	3,805	452·55	126
3. Mechanics employed in Occupations favourable to physical development (as Smiths, Carpenters, Masons, &c.).	9,697	4,008	413·32	145
4. Shopmen and Clerks - -	4,220	1,633	386·14	63
5. Professional Occupations, Students, &c.	634	173	272·87	10
6. Boys under 17 years of age -	1,564	216	138·11	23
Not stated - - - -	4	5	—	—
Total - - -	66,882	27,888	416·97	1,000

As compared with the results for the previous year the proportion of rejections of recruits is higher in class 2, manufacturing artizans, by 40·79 per 1,000, in class 3, mechanics, by 24·21, and in class 1, labourers, by 19·92 per 1,000, but the proportion is lower in class 6, boys under 17 years of age, by 30·77 per 1,000, in class 4, shopmen and clerks, by 20·99, and in class 5, professional occupations, by 17·03 per 1,000.

In 1,000 recruits inspected, as compared with the results for the previous year, the proportion of labourers is higher by 28, and that of shopmen and clerks by 9, but the proportion of artizans is lower by 19, that of mechanics by 13, that of professional occupations by 1, that of boys under 17 years of age by 4.

The next table shows the state of education in 64,908 of the recruits inspected; for the remainder (1,974) of the total number inspected no information on this point is available.

TABLE V.

——	Numbers Inspected.	Proportion per 1,000.
Well educated - - - -	6,472	100
Able to read and write - - -	46,496	716
Able to read only - - - -	4,590	71
Unable to read - - - -	7,350	113
Total - - - -	64,908	1,000

As compared with the state of education in the previous year it is observed that there is an increase of 21 per 1,000 in the proportion of recruits well educated, a decrease of 3 per 1,000 in the proportion of those able to read and write, one of 7 in those able to read only, and a decrease of 11 in the proportion of those unable to read.

Table No. 6 shows the number of recruits rejected in 1884, with the causes of rejections ranged in classes, and the ratio per 1,000 in each class.

United Kingdom.

TABLE VI.

Causes of Rejections, in Classes.	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.				Unfit within first three months of service.	Total examined.	
	55,732		11,150					66,882	
	Number Rejected.	Ratio per 1,000 Rejected.	Number Rejected by Civil Medical Practitioners at Primary Inspection.	Ratio per 1,000 Rejected.	Number Rejected by Army Medical Officers at Secondary Inspection.	Ratio per 1,000 Rejected.		Total Number Rejected.	Ratio per 1,000 Rejected.
1. Syphilis - - -	560	10·05	70	6·28	74	6·64	3	707	10·57
2. Scrofula - - -	187	3·36	46	4·12	8	·72	—	241	3·60
3. Phthisis - - -	134	2·40	20	1·79	5	·45	10	169	2·53
4. Impaired Constitution	673	12·07	12	1·08	52	4·66	1	738	11·04
5. Other General Diseases	249	4·47	35	3·14	20	1·79	10	314	4·69
6. Diseases of Nervous System.	55	·98	5	·45	25	2·24	33	118	1·76
7. Weakness of Intellect -	123	2·21	5	·45	29	2·60	23	180	2·69
8. Defective Vision -	2,149	38·56	188	16·86	189	16·95	4	2,530	37·83
9. Diseases of Eyes and Eyelids.	138	2·48	52	4·66	21	1·88	7	218	3·26
0. Diseases o Nose and Mouth.	24	·43	4	·36	6	·54	—	34	·51
1. Disease of Ears -	35	·63	2	·18	9	·81	—	46	·69
2. Deafness - - -	50	·90	12	1·08	12	1·08	5	79	1·18
3. Impediment of Speech	84	1·51	5	·45	30	2·69	6	125	1·87
4. Disease of Heart -	953	17·10	123	11·03	60	5·38	25	1,161	17·36
5. Disease of Arteries (Aneurism).	26	·47	—	—	8	·72	—	34	·51
16. Disease of Veins (Varix)	927	16·63	143	12·83	107	9·60	6	1,183	17·69
17. Disease of Lungs (except Phthisis).	95	1·70	17	1·52	8	·72	1	121	1·81
18. Loss or Decay of many Teeth.	443	7·95	42	3·77	90	8·07	2	577	8·63
19. Hernia - - -	376	6·75	76	6·82	33	2·96	16	501	7·49
20. Laxity of Abdominal Rings	105	1·88	4	·36	8	·72	—	117	1·75
21. Hæmorrhoids - -	106	1·90	21	1·88	22	1·97	—	149	2·23
22. Diseases of the Urinary Organs.	41	·73	23	2·06	9	·81	4	77	1·15
23. Varicocele - -	739	13·26	232	20·81	86	7·71	3	1,060	15·85
24. Other Diseases of the Genital Organs (not Syphilitic).	69	1·24	20	1·79	17	1·52	1	107	1·60
25. Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	341	6·12	32	2·87	51	4·57	7	431	6·44
26. Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	623	11·18	92	8·25	70	6·28	6	791	11·83
27. Flat Feet - -	517	9·28	51	4·57	71	6·37	6	645	9·64
28. Diseases of Joints -	164	2·94	8	·72	14	1·26	—	186	2·78
29. Other Affections of Bones and Muscles.	167	3·00	7	·63	14	1·26	3	191	2·86
30. Ulcers, Wounds, and Cicatrices.	194	3·48	17	1·52	18	1·61	1	230	3·44
31. Other Affections of the Cutaneous System.	180	3·23	51	4·57	18	1·61	1	250	3·74
32. Malformation of Ears -	11	·20	4	·36	2	·18	—	17	·25
33. Malformation of Nose and Mouth.	28	·50	6	·54	1	·09	—	35	·52
34. Malformation of Chest and Spine.	487	8·74	66	5·92	47	4·22	8	608	9·09
35. Malformation of Urinary or Genital Organs.	19	·34	3	·27	—	—	—	22	·33
36. Marks of Punishment, or of letter D. or B.C.	9	·16	1	·09	7	·63	—	17	·25
37. Under Height - -	2,068	37·11	31	2·78	188	16·86	2	2,289	34·23
38. Under Chest Measurement.	6,083	109·14	157	14·08	560	50·22	16	6,816	101·91
39. Under Weight (Muscular Tenuity and Debility).	3,307	59·34	270	24·22	434	38·92	32	4,043	60·45
40. Apparent Age not in accordance with General Order.	605	10·85	18	1·61	93	8·34	1	717	10·72
41. Not likely to become an efficient soldier.	—	—	2	·18	—	—	6	8	·12
42. Over height - -	—	—	1	·09	—	—	—	1	·01
Not stated - -	—	—	—	—	—	—	5	5	·07
Total Rejected -	23,144	415·27	1,974	177·04	2,516	225·65	254	27,888	416·97

United Kingdom.

The proportions of rejections for the various causes differ only slightly in each instance from those given in the return for the previous year, except in the following classes, height, weight, and chest measurement. In the proportion of recruits rejected for being under height an increase of 11·23 per 1,000 has occurred, and for being under weight one of 31·36 per 1,000, but in the proportion of recruits rejected for being under chest measurement a decrease of 23·70 per 1,000 is observed.

The cause of rejection, not likely to become an efficient soldier, shows 8 instances, of these 2 were returned by Civil Medical Practitioners, and 6 were men who were discharged during the first three months of service, and were returned as such.

The proportion of rejections for defective chest measurement by Army Medical Officers at primary inspection was 109·14, and that by Civil Practitioners 14·08 per 1,000; in rejections for under height, the proportion by Medical Officers was 37·11, and that by Civil Practitioners 2·78 per 1,000; in the classes "under weight" and "apparent age not being in accordance with General Order," considerable differences are also noticed, and in a less degree in certain other classes of rejections.

Ages, Heights, Weights, and Chest Measurements of Recruits.

The following table shows the ages of all recruits as given at their primary inspection, and the proportion of each age per 1,000.

TABLE VII.

Ages.	Numbers Inspected			Proportion per 10,000		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Inspected by Army Medical Officers.	Inspected by Civil Medical Practitioners.	Total.
Boys under 17 years	1,400	184	1,584	251	165	237
From 17 to 18 "	1,349	366	1,715	242	328	257
" 18 to 19 "	18,014	3,303	21,317	3,232	2,963	3,187
" 19 to 20 "	14,667	2,945	17,612	2,632	2,641	2,633
" 20 to 21 "	5,746	1,255	7,001	1,031	1,126	1,047
" 21 to 22 "	4,177	980	5,157	750	879	771
" 22 to 23 "	3,547	708	4,255	636	635	636
" 23 to 24 "	2,892	620	3,512	519	556	525
" 24 to 25 "	2,913	598	3,511	523	536	525
25 years and upwards	1,027	191	1,218	184	171	182
Total -	55,732	11,150	66,882	10,000	10,000	10,000

Omitting boys under 17 years of age, the number of recruits inspected was 65,298, giving the average age of recruits for the year as 19·68 years, which is less than the average age of recruits for the previous year by ·03.

United Kingdom

As compared with the return for the preceding year, the proportion of recruits under 17 years of age has decreased by 24 between 19 and 20 years by 754, between 20 and 21 years by 130, and between 21 and 22 years by 88; but the proportion has increased between 17 and 18 years by 99, between 18 and 19 years by 701, between 22 and 23 years by 40, between 23 and 24 years by 53, between 24 and 25 years by 35, and 25 years and upwards by 68.

The next table shows the heights of recruits, at their inspection, and the proportion per 10,000 at each height.

TABLE VIII.

Heights.	Numbers Inspected			Proportion per 10,000		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Inspected by Army Medical Officers.	Inspected by Civil Medical Practitioners.	Total.
ft. in. ft. in.						
Under 5 3 -	2,223	250	2,473	399	224	370
5 3 to 5 4 -	6,474	1,249	7,723	1,162	1,121	1,155
5 4 to 5 5 -	11,123	2,370	13,493	1,996	2,126	2,017
5 5 to 5 6 -	11,041	2,276	13,317	1,981	2,042	1,991
5 6 to 5 7 -	8,999	2,019	11,018	1,615	1,811	1,647
5 7 to 5 8 -	7,101	1,432	8,533	1,274	1,285	1,276
5 8 to 5 9 -	4,277	825	5,102	767	740	763
5 9 to 5 10 -	2,391	423	2,814	429	379	421
5 10 to 5 11 -	1,139	201	1,340	204	180	200
5 11 to 6 0 -	584	69	653	105	62	98
6 0 and upwards	380	33	413	68	30	62
Total -	55,732	11,147	66,879	10,000	10,000	10,000

Compared with the previous year the proportion of recruits per 10,000 shows an increase of 23 recruits under 5 feet 3 inches in height, of 67 between 5 feet 5 inches and 5 feet 6 inches, of 54 between 5 feet 6 inches and 5 feet 7 inches, of 91 between 5 feet 7 inches and 5 feet 8 inches, of 13 between 5 feet 10 inches and 5 feet 11 inches, and of 5 of 6 feet or upwards; but a decrease is observed of 61 recruits between 5 feet 3 inches and 5 feet 4 inches, of 172 between 5 feet 4 inches and 5 feet 5 inches, of 19 between 5 feet 8 inches and 5 feet 9 inches, and of 1 between 5 feet 9 inches and 5 feet 10 inches; between 5 feet 11 inches and 6 feet the number of recruits is the same as in the preceding year.

Table No. 9 shows the weights of 64,798 recruits at their inspection. Information on this point for 2,084 recruits, the balance of the total number inspected is not available.

United Kingdom.

Table IX.

Weights.	Numbers Weighed.	Proportion per 10,000.
Under 100 lbs. - - - - -	1,379	213
100 lbs. to 110 lbs. - - - -	2,293	354
110 „ to 120 „ - - - -	14,132	2,181
120 „ to 130 „ - - - -	21,557	3,327
130 „ to 140 „ - - - -	14,574	2,249
140 „ to 150 „ - - - -	6,949	1,072
150 „ to 160 „ - - - -	2,715	419
160 „ to 170 „ - - - -	932	144
170 „ and upwards - - -	267	41
Total - - - -	64,798	10,000

Compared with the return for the previous year a decrease in the proportion per 10,000 is observed of 37 recruits under 100 lbs. weight, and of 86 from 120 lbs. to 130 lbs., and of 67 between 130 and 140 lbs. weight; but an increase has occurred of 8 recruits for 100 to 110 lbs. weight, of 7 from 110 to to 120 lbs., of 59 from 140 to 150 lbs., of 86 from 150 to 160 lbs., of 28 from 160 to 170 lbs. weight, and of 2 weighing 170 lbs. or upwards in 10,000 recruits whose weights have been recorded.

In Table No. 10 is shown the chest measurements of recruits, recorded at their inspection.

Table X.

Chest Measurement.	Numbers Measured.			Proportion per 10,000.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Measured by Army Medical Officers.	Measured by Civil Medical Practitioners.	Total.
Under 31 inches -	1,466	198	1,664	263	178	249
31 to 32 „ -	2,830	282	3,112	508	253	465
32 „ 33 „ -	8,530	1,326	9,856	1,531	1,189	1,474
33 „ 34 „ -	16,552	3,238	19,890	2,970	2,905	2,974
34 „ 35 „ -	15,284	3,620	18,904	2,742	3,248	2,827
35 and upwards -	11,070	2,483	13,453	1,986	2,227	2,011
Total -	55,732	11,147	66,879	10,000	10,000	10,000

Compared with the corresponding return for the previous year it is observed that there is no change in the proportion of recruits per 1,000, under 31 inches chest measurement, but there is an increase of 151 in that of recruits between 31 and 32 inches, and of 304 in that of recruits between 32 and 33 inches. In the proportion of recruits between 33 and 34 inches there is a decrease of 25, in that between 34 and 35 inches, one of 279; and in the proportion of recruits over 35 inches chest measurement there is a decrease of 151.

United Kingdom.

In the following Tables Nos. 11, 12, and 13 are arranged in series according to age, the heights, weights, and chest measurements of recruits which have been recorded.

The proportions for 10,000 of each height, weight, and chest measurement at each age are also given.

TABLE XI.

Heights of Recruits on Inspection by Army Medical Officers, and by Civil Medical Practitioners.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Totals at each Height.
ft. in. ft. in.											
Under 5 3 -	1,167	76	579	250	54	23	23	16	27	8	2,473
	169	12	40	17	4	1	—	2	2	3	
5 3 to 5 4 -	121	379	3,221	1,534	383	256	210	158	164	48	7,723
	7	100	621	290	95	40	32	27	33	4	
5 4 to 5 5 -	49	336	4,218	3,060	1,005	815	600	470	442	128	13,493
	4	98	855	666	247	162	121	115	79	23	
5 5 to 5 6 -	38	226	3,744	3,005	1,213	796	779	551	517	172	13,317
	3	72	718	609	275	187	158	121	102	31	
5 6 to 5 7 -	13	158	2,642	2,515	1,023	783	623	502	526	214	11,018
	—	37	517	542	261	227	145	108	133	49	
5 7 to 5 8 -	8	84	1,869	2,026	904	598	480	489	472	171	8,583
	—	27	290	405	171	174	117	122	99	27	
5 8 to 5 9 -	2	47	979	1,166	553	401	358	309	326	136	5,102
	1	16	154	239	109	97	62	55	68	24	
5 9 to 5 10 -	1	31	447	608	320	240	213	212	238	81	2,814
	—	2	76	110	52	51	41	35	42	14	
5 10 to 5 11 -	—	6	168	274	156	123	137	114	116	45	1,340
	—	1	24	44	28	27	18	22	26	11	
5 11 to 6 0 -	—	4	96	138	83	75	71	47	57	13	653
	—	1	7	17	10	7	8	8	10	1	
6 0 and upwards	1	2	51	91	52	67	53	24	28	11	413
	—	—	1	6	3	7	6	5	4	1	
Totals at each age and height	1,584	1,715	21,317	17,612	7,001	5,157	4,255	3,512	3,511	1,215	66,879

Heights of Recruits on Inspection by Army Medical Officers and by Civil Medical Practitioners.	Proportions per 10,000 of each Age at each Height.										Total Proportion per 10,000 at each Height
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
ft. in. ft. in.											
Under 5 3 -	8,434	513	290	151	83	46	54	51	83	90	370
5 3 to 5 4 -	808	2,793	1,803	1,036	683	574	571	527	561	428	1,155
5 4 to 5 5 -	335	2,531	2,380	2,116	1,788	1,895	1,694	1,666	1,484	1,243	2,017
5 5 to 5 6 -	259	1,738	2,093	2,052	2,125	1,906	2,202	1,913	1,763	1,671	1,391
5 6 to 5 7 -	82	1,137	1,482	1,736	1,834	1,959	1,805	1,737	1,877	2,165	1,647
5 7 to 5 8 -	51	647	1,013	1,380	1,535	1,497	1,403	1,740	1,626	1,629	1,276
5 8 to 5 9 -	19	367	532	798	946	966	987	1,036	1,122	1,317	763
5 9 to 5 10 -	6	192	245	408	531	564	597	703	798	782	421
5 10 to 5 11 -	—	41	90	180	263	291	364	387	404	461	200
5 11 to 6 0 -	—	29	46	88	133	159	185	157	191	115	98
6 0 and upwards	6	12	24	55	79	143	138	83	91	99	62
Total -	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

United Kingdom.

Omitting boys, the highest proportion per 10,000 of recruits at any age and height was 2,793 at the age between 17 and 18, and at the height from 5 feet 3 inches to 5 feet 4 inches; this proportion, however, depends on a comparatively few inspections, the next highest proportion 2,380 at the age between 18 and 19 years and between 5 feet 4 and 5 feet 5 inches in height is more worthy of comparison with the highest proportion in the previous year, which was 2,620 at the age between 21 and 22 years, and the height of 5 feet 4 inches to 5 feet 5 inches.

TABLE XII.

Weights of Recruits on Inspection by Army Medical Officers.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Totals at each Weight.
Under 100 lbs. -	1,301	20	19	30	7	—	2	—	—	—	1,379
100—110 lbs. -	180	223	1,166	441	117	70	42	32	15	7	2,293
110—120 „ -	75	633	7,155	3,621	1,037	655	378	278	222	78	14,132
120—130 „ -	17	518	7,955	6,440	2,114	1,407	1,172	892	792	250	21,557
130—140 „ -	2	159	3,307	4,153	1,907	1,428	1,260	1,003	1,021	334	14,574
140—150 „ -	1	83	900	1,646	1,024	793	761	702	779	260	6,949
150—160 „ -	—	48	209	462	409	404	335	315	362	171	2,715
160—170 „ -	—	17	78	152	126	138	114	116	134	57	932
Upwards of 170 lbs.	1	1	10	20	31	37	40	42	61	24	267
Totals at each age	1,577	1,702	20,799	16,965	6,772	4,932	4,104	3,380	3,386	1,181	64,798

Weights of Recruits on Inspection by Army Medical Officers.	Proportions per 10,000 at each Age.										Total Proportion per 10,000 at each Weight.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 100 lbs. -	8,250	118	9	18	10	—	5	—	—	—	213
100—110 lbs. -	1,141	1,310	561	260	173	142	102	95	44	59	354
110—120 „ -	476	3,719	3,440	2,134	1,531	1,328	921	822	656	660	2,181
120—130 „ -	108	3,043	3,825	3,796	3,122	2,853	2,856	2,639	2,339	2,117	3,327
130—140 „ -	13	934	1,590	2,448	2,816	2,895	3,070	2,968	3,015	2,828	2,249
140—150 „ -	6	488	433	970	1,512	1,608	1,854	2,077	2,301	2,202	1,072
150—160 „ -	—	282	100	272	604	819	816	932	1,069	1,448	419
160—170 „ -	—	100	37	90	186	280	278	343	396	483	144
Upwards of 170 lbs.	6	6	5	12	46	75	98	124	180	203	41
Totals at each age	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Omitting boys, the highest proportion of recruits per 10,000 at any age and weight is 3,825 among those between 18 and 19 years of age, and between 120 and 130 lbs. weight; the highest proportion in the previous year being 4,042, at the age between 19 and 20 years, and between 120 and 130 lbs. weight.

United Kingdom.

TABLE XIII.

Chest Measurement of Recruits on Inspection by Army Medical Officers, and by Civil Medical Practitioners.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Chest Measurement.
Under 31 inches -	1,165 164	46 5	162 18	63 10	13 1	8 —	1 —	3 —	3 —	2 —	1,664
31—32 inches -	155 15	265 47	1,396 135	621 50	205 9	82 12	51 2	33 2	19 9	3 1	3,112
32—33 " -	56 3	406 112	4,273 596	2,266 298	549 135	307 47	277 42	193 52	171 30	32 11	9,856
33—34 " -	18 2	392 124	6,695 1,313	4,649 863	1,663 320	1,074 210	829 147	593 152	486 87	153 20	19,790
34—35 " -	5 —	187 57	3,945 896	4,517 1,137	1,894 432	1,397 404	1,245 267	939 170	825 194	330 63	18,904
Above 35 inches -	1 —	53 21	1,543 345	2,551 587	1,422 358	1,309 307	1,144 250	1,131 244	1,409 278	507 93	13,553
Totals at each age	1,584	1,715	21,317	17,612	7,001	5,157	4,255	3,512	3,511	1,215	66,879

Chest Measurement of Recruits on Inspection by Army Medical Officers, and by Civil Medical Practitioners.	Proportions per 10,000 at each Age.										Total proportion per 10,000 at each Chest Measurement.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 31 inches -	8,390	297	84	41	20	16	2	8	9	16	249
31—32 inches -	1,073	1,819	718	381	306	182	125	100	80	33	465
32—33 " -	373	3,021	2,284	1,456	977	686	750	698	572	354	1,474
33—34 " -	126	3,009	3,757	3,130	2,833	2,490	2,294	2,121	1,632	1,424	2,974
34—35 " -	32	1,423	2,271	3,210	3,322	3,492	3,553	3,158	2,902	3,235	2,827
Above 35 inches -	6	431	886	1,782	2,542	3,134	3,276	3,915	4,805	4,938	2,011
Total -	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Omitting boys, the highest proportions of recruits per 10,000 are found to be 4,938 at the age of 25 and upwards, and above 35 inches chest measurement, and 4,805 between 24 and 25 years of age, and above 35 inches chest measurement. In the previous year the highest proportions were within the same limits of age and chest measurement; this is due, however, to the comparatively small number of men inspected at these ages. Taking the ages at which the greater number of recruits are inspected, the highest proportion is 3,757 between 18 and 19 years of age, and 33 and 34 inches chest measurement.

United Kingdom.

On the Influence of Age on the Mortality of the Troops serving in the United Kingdom.

The rates of mortality at different ages (arranged in quinquennial periods), in the several arms of the service, are shown in the following Table:—

Arms of the Service.	Annual Ratio of Deaths per 1,000 Living at the following Ages:—					
	Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Household Cavalry - -	—	2·46	3·83	13·24	8·69	—
Cavalry - - -	3·72	3·69	4·44	10·05	11·41	—
Royal Artillery - -	3·04	2·44	3·41	7·42	8·15	24·67
Royal Engineers - -	2·69	5·40	18·25	13·19	8·33	8·69
Foot Guards - - -	6·40	3·25	5·48	18·65	4·48	16·39
Infantry - - -	1·82	5·26	5·55	8·42	10·33	10·41
Regimental Depôts - -	2·51	5·80	6·86	16·25	18·87	25·84
Garrison, Staff, and Departmental Corps.	—	5·33	8·96	8·62	29·30	86·95
Average of all Troops at Home	2·39	4·47	5·68	10·15	11·78	19·85
Ditto ditto 1873–82	3·21	4·82	6·29	10·34	15·82	22·91
*Civil Male Population { England and Wales	6·89	8·67	9·55	10·37	11·96	13·96
*Civil Male Population { Healthy Districts -	5·83	7·30	7·93	8·36	8·96	9·86

* The ratio of mortality of males in the civil population under 20 has been calculated for the ages of 17–20, and that of 40 and upwards for the ages 40–45. The data for England and Wales have been obtained from Dr. Farr's English Life Table, published by authority of the Registrar General in 1864, and for Healthy Districts, from Dr. Farr's Healthy District Life Table, published in the 33rd Annual Report of the Registrar General.

HOME STATIONS.

United Kingdom.

SANITARY CONDITIONS.

Northern District.

Deputy Surgeon-General Tippetts reports that the health of the troops during the year was good, the number daily sick being a little over 4 per cent. Venereal diseases caused a large proportion of the sickness recorded.

Cubic Space.—This has been sufficient in barracks, except in a few instances where, owing to militia training or arrival of large parties of recruits, the space has been temporarily limited.

Hospital Accommodation reported good in the new, but bad in the old hospitals, *e.g.*, Sunderland and Berwick.

Several minor improvements have been effected during the year at various stations. At York additional accommodation is required, more especially for the hospital staff.

The ventilation and ablution arrangements in barracks and hospitals are satisfactory, several defects existing in the former have been remedied during the year.

Rations and Cooking.—The rations were of good quality and the cooking was satisfactory.

Eastern District.

Deputy Surgeon-General H. T. Reade, V.C., Principal Medical Officer, reports that the health of the troops has been good. A few mild cases of scarlet fever occurred at Colchester, Warley, Shoeburyness, and Bury St. Edmunds, and two cases of diphtheria were recorded at Norwich. In no instance could these diseases be traced to local sanitary defects. Venereal affections were more prevalent than in the previous year, the increase in the admission rate amounting to 10·4 per 1,000 of average strength.

The *barracks and hospitals* throughout the district are reported to be satisfactory, except at Lincoln and Bury St. Edmunds, where the barracks are reported to be extremely cold. Suggestions have been made to remedy this defect, but no steps have yet been taken to carry them out.

A lunatic ward and infectious disease hospital are required at Colchester, the present accommodation being unsuitable for the treatment of such cases.

Several minor improvements have been effected throughout the district in connexion with the water supply and drainage.

Western District.

Deputy Surgeon-General Tulloch, Principal Medical Officer, reports that the admission and invaliding ratios are both less than in the previous year, while the death rate shows an increase. "The higher rate of mortality is due "in some measure to an unusual number of deaths by violence: 6 from accidental drowning and 2 from suicide." The ratio of mortality from phthisis pulmonalis was also high, amounting to 3·57 per 1,000 of average strength as compared with 1·83 the average of the 4 preceding years.

Barracks and huts.—The accommodation, ventilation, warming, and lighting of barracks have been generally satisfactory.

"In the encampment at Pembroke Dock the wooden huts are being "gradually replaced by brick ones. Two of this construction have been added "during the year."

United Kingdom.

An improved system of drainage is being carried out at Newport. Jenning's watercloset system has been provided for the defensible barracks, Pembroke Dock, and waterclosets are being substituted for earthclosets at Newport.

Hospitals.—Except at Horfield, where, during the militia training, it was supplemented by the appropriation of a barrack room, the accommodation provided for the sick has been sufficient and satisfactory.

A dispensary, surgery, waiting room, and clerks office have been added to the station hospital at Pembroke Dock, while at Devonport the accommodation for cases of infectious disease has been improved and alterations effected in the sewage arrangements of the hospital.

Three rooms appropriated last year as quarters for sick officers have been suitably furnished and are now ready for the reception of patients.

Southern District.

According to the reports of the various medical officers the health of the troops under their charge was satisfactory. The ratio of admission to hospital was 915·7 per thousand, that of death 4·45, that of invaliding 24·69, and that of constantly sick 47·71 per 1,000; compared with the preceding year there is a slight increase in admission rate but a considerable decrease in mortality.

The Principal Medical Officer, Brigade Surgeon E. J. Hopwood, reports that no leading sanitary improvement was carried out during the year except at Portsmouth, where increase of cubic accommodation for 428 men was effected, by the occupation of the block of the new Clarence barracks, the mean cubic space per man being 867 feet. Increased facilities for ablution new Clarence barracks, E block, an ablution room and bath on each floor of each house with an ample supply of water. In the station hospital, Portsmouth, improvements in ablution rooms were being carried out, and constant supply of hot and cold water provided. Drainage of barracks and hospitals was carefully inspected during the year and defects in many instances remedied. The Cambridge barracks, Portsmouth, were found to be much out of order as regards valves, traps, and connexions of the drains, and remedial measures were undertaken.

The defective condition of the drainage at Gosport, owing to want of fall and the reflux of water into the drains at high tide, is remarked upon and a report has been made.

The Principal Medical Officer points out that the drainage of the borough of Portsmouth is defective, chiefly owing to the want of proper fall and adequate means of flushing.

Netley.

Surgeon-General W. S. Murray, M.B., Principal Medical Officer, reports that 1,900 invalids from abroad, including 347 from Egypt, were admitted to the Royal Victoria Hospital during the year. In addition to these, two invalids were transferred from Portsmouth and 479 invalids remained in hospital on 31st December 1883, making the total number treated 2,381. Of these 16 died, 1,064 were discharged to duty, and one by purchase. One was transferred to prison, two to other hospitals, while 921 were discharged invalided and 376 remained under treatment at the end of the year.

The highest number in hospital during the year was 850 on the 11th May, and the lowest, 88, on the 17th September.

The sanitary condition of hospital and attached buildings has been satisfactory. During the year improvements were effected in the officers' quarters, by alterations in sewage arrangements and by other means.

The accommodation provided for the sick was adequate. At no time did overcrowding take place. The grounds and vicinity of the building have been kept in good order, the grant for this purpose having been augmented during

United Kingdom.

the year. A sea wall has been built for some distance along the margin of the Southampton water, and will be extended when funds are available. Means have been provided for heating the corridors on the basement and first floors of the hospital and the lavatories connected with the wards. Asphalt has been substituted for wood in the flooring of several of the lavatories, and a hydraulic lift has been provided for the conveyance of serious cases to the medical and surgical divisions.

Latrines, &c. carefully supervised and reported satisfactory in all respects.

Rations and means of cooking.—The rations have, on the whole, been good. The cooking has been satisfactory. On 20th May classes for instruction in cooking were opened under the superintendence of Miss Edwards, and are reported to have been successfully conducted.

Water supply reported good and sufficient. During the drought of summer the supply from the reservoir was, for a period of six weeks, limited, but sufficient water was procurable from wells to meet all wants. A steam boiler has been added to the pumping plant in the north wing of the hospital for the better provision of water in case of fire.

Lunatic Hospital.—Asphalt has been substituted for wood in the flooring of the lavatories, and improvements have been effected in the water main with a view to increasing the supply.

Chatham District.

The Principal Medical Officer, Deputy Surgeon-General A. Guthrie, M.D., reports that the general health of the troops in the district was satisfactory throughout the year; the ratio of admission to hospital was 844·8 per 1,000, that of death 3·81, that of invaliding 33·01, and that of constantly sick 49·41 per 1,000. With the exception of that of mortality, which is unusually small, all these ratios are higher than those corresponding in the previous year; and the Principal Medical Officer states that "the increased admission rate is "accounted for by the large number of cases of venereal disease that have "occurred."

"All sanitary arrangements have been, on the whole, satisfactory, and any "defects in these do not appear to have affected the health of the troops.

"The accommodation in barracks and hospitals has been ample, excepting in "the latter at Gravesend, where it is somewhat insufficient, and at all times "unsuitable in construction and position. This is, however, being remedied "by the construction of a new and larger hospital, which it is hoped will "be completed in the course of the year.

"At Chatham an overcrowded condition of the guard-room, Royal Engineers, "where the guard is doubled at night, has been brought to notice, and the "remedy is under consideration. The ablution rooms of the infantry regi-"ments are not altogether satisfactory, but everything possible has been done "to make them so.

"With the above exceptions no unsanitary condition of any importance "has been noticed with regard to barracks and hospitals, but the houses in "the vicinity of barracks appear to admit of considerable improvement in "sanitary arrangements.

"The water supply has been good and sufficient; during the summer "months an extra supply was furnished.

"Rations and cooking arrangements have been satisfactory.

"Various sanitary services have been carried out during the year; careful "inspections have been made, and all recommendations have, as far as "possible, been carried out."

South-Eastern District.

Deputy Surgeon-General S. B. Roe, Principal Medical Officer, reports that the health of the troops during the year was fairly good. The admission and death rates were both below the average of the previous four years, but the invaliding rate was higher. Three cases of enteric fever were recorded throughout the district. In none of them could the origin be traced.

United Kingdom.

Barracks.—These have afforded suitable accommodation for the troops. The ventilation, drainage, &c. have been generally satisfactory. Some minor defects have been from time to time brought to notice, and, where practicable, remedied.

Hospitals.—The accommodation provided for the sick has been satisfactory at all stations. At the Western Heights, Dover, complaints are made of the smallness of the chimneys, and all attempts to remedy this defect appear to have failed.

Rations.—These have, as a rule, been good.

Water supply.—Everywhere of good quality and sufficient in quantity for all purposes.

The following sanitary improvements were effected during the year:—

" *Canterbury.*—Drill field thoroughly drained.

" *Dover.*—Drainage in the Keep Yard at the Castle, in the hospital, and in " the family quarters improved.

" *Hythe.*—Class-rooms and sergeants' mess room enlarged.

" *Shorncliffe.*—An open cesspit closed, and replaced by a dry earthcloset.

" Gable ends of occupied huts covered with tarred felt as a protection against " the weather."

Home District.

The Principal Medical Officer, Deputy Surgeon-General Sir J. A. Hanbury, K.C.B., reports that "any sanitary defects observed at the inspection of " barracks and hospitals were immediately brought to notice, and in the " majority of instances steps were at once taken for their removal. Latrine " accommodation has been increased in Wellington Barracks, N. House. At " Kensington Barracks the guard-room does not afford sufficient accommoda- " tion for the number of men employed.

" The rations have been throughout satisfactory, and the water supply has " been good and sufficient. The duties of the troops have been very con- " siderable, especially the night duties; and chest and rheumatic affections " have been prevalent. The family quarters were kept in good order, but " there has at times been some overcrowding.

" The recruits, who passed through the gymnasium at Caterham, have been " decidedly improved both in general physique and chest measurement by the " course of training they underwent."

Woolwich District.

Deputy Surgeon-General Sir James Hanbury, K.C.B., reports that "any " sanitary defects noticed during the various inspections were of a minor " character, and were at once remedied on representation. The barracks " afforded sufficient accommodation for the troops. Attention was paid to all " conservancy arrangements, and a special sanitary body placed under the " orders of the quartermasters for carrying out these duties. The rations, " cooking, &c. were satisfactory and water supply good and abundant. The " duties of the troops were considerable, but did not prove prejudicial to " health. The means of recreation both indoors and out are very large and " varied. The family quarters are in good order, but are quite insufficient to " meet all requirements, consequently some overcrowding has taken place, " but this is being gradually reduced as accommodation is secured elsewhere " in lodgings. The troops have been regularly trained in the gymnasium " with beneficial effect on the health of the men, and the physique and chest " measurement of the recruits decidedly improved.

"Certain barrack lavatories which were placed alongside the barrack room "walls, causing considerable dampness in the adjacent rooms, have been "removed to the centre of the bathhouses, thereby obviating the defect." *United Kingdom.*

Aldershot Division.

The Principal Medical Officer, Surgeon-General J. Hendley, C.B., reports that the rates of admission to hospital during the year was 921·5 per 1,000, that of death 4·02, that of invaliding 16·22, and that of constantly sick 55·72 per 1,000. Compared with the corresponding ratios in the preceding year a decrease is observed in the rates of mortality and invaliding, but there is hardly any change in those of admission and inefficiency through sickness.

During the first half of the year measles and scarlet fever were prevalent among the troops, but both diseases were of a mild type, and could not be traced to any insanitary condition of camp or quarters.

Eighteen cases of enteric fever were treated, all of which recovered. It is pointed out that the disease was localised in those barracks and huts nearest to the town of Aldershot, the North Camp not having had a single case during the year.

Diphtheria was very prevalent in the neighbourhood during the year, and strict sanitary precautions were taken to prevent its importation into the camps and barracks, which were so far successful that only one case occurred, which, however, was severe and fatal.

The rate of admission for venereal disease was very high, 333·7 per 1,000. It appears, however, that the increase is in primary syphilis, the admissions being much in excess of any in the previous five years, whilst gonorrhœa seems to be decreasing.

The Sanitary Officer, Deputy Surgeon-General R. Wolseley, M.D., reports that on the whole the sanitary condition of the quarters occupied by the troops in the division must be considered fair, but he points out that improvement is required in the water supply, that the water collected in the reservoirs at Bourley, for conveyance to the permanent barracks and South Camp, is merely surface drainage from the surrounding hills, and should be filtered before use. The expense of fitting filters would be considerable, and it is a matter for investigation whether it would not be more advisable that some wells should be sunk in the neighbourhood through the chalk stratum and good water obtained.

In the North Camp several of the wells were found to be impure, but except in very dry weather good water can be obtained from certain wells in the vicinity.

The drainage of camps, barracks, and hospitals has been fair; and whenever faults have arisen attention was invariably drawn to them, and the defects remedied. Some complaints were made in the North Camp of foul smells arising from the sewage farm during easterly winds, but the sanitary officer was unable to trace the occurrence of any illness to it. The Goux system of conservancy in use in the North Camp now works fairly, the defects which existed (and which led to strong representations) being more the fault of the working than of the system itself.

In both camps and in barracks considerable sanitary improvements have been made during the year as regards reconstruction and ventilation of drains, &c.

Arrangements for ablution, clothing, rations, cooking, and other conditions affecting the health of the troops have all been satisfactorily reported on.

United Kingdom.

North British District.

The Principal Medical Officer reports that "the general health of the troops " stationed in the district has been very good, and the sanitary conditions " fairly satisfactory. Although many of the barracks are of primitive con- " struction, and not ventilated in accordance with modern requirements, the " health of the men does not appear to have suffered. Some of the barracks " in Edinburgh Castle are very old and have no uniform system of ventilation. " Ablution accommodation was improved in Milnes Mount barracks. The " sanitary condition of Leith Fort and Piershill is satisfactory, some temporary " overcrowding occurred at the former place owing to the arrival of an " unusual number of recruits. Glencorse is favourably reported on, as also " Stirling, with the exception of some insanitary condition near the Castle, " for which remedial measures were proposed. At Perth there is difficulty in " effecting a thorough system of drainage in consequence of the low lying " nature of the site. At Ayr a new guard room has been constructed and the " old one utilized as a lock-up. The sanitary conditions at Fort George, " Aberdeen, and Hamilton are satisfactorily reported on; but at Maryhill, " Glasgow, it is stated that the sanitary condition of the neighbourhood of " the barracks is bad, on account of defective drainage, an open channel " known as the Possil Burn, which conveys the sewage of the village of " Possil to the river, passes close to the northern boundary of the barracks, " and in dry weather is very objectionable. The attention of the municipal " authorities has frequently been called to this. The general health of the " troops does not, however, appear to have been affected."

Channel Islands.

The Senior Medical Officer, Surgeon-Major Wilkes, reports that the "general " health of the troops in the Channel Islands during the year has been good, " except that venereal disease has been prevalent.

"It is reported that in Jersey all sanitary arrangements were carefully " attended to, the water supply was sufficient and of good quality, and the " rations and cooking good.

"In Guernsey it is noted that the drainage and latrines of the Lower Lines " barracks require improvement, and that the latrines at Fort Hommete " are badly constructed and difficult to keep clean.

"From Alderney it is reported that the dry earth system should be used, " instead of water flushing in the latrines, as during the summer months " there is not a sufficient supply of water, and imperfect working is the " result.

"Several sanitary improvements were made during the year in both barracks " and hospitals, and recommendation was made that others should be carried " out during the succeeding year."

Belfast District.

Deputy Surgeon-General W. A. Thomson, M.B., Principal Medical Officer, reports that the general health of the troops has been good; the admissions, deaths, invaliding, and numbers constantly sick being all less than in previous years.

Barracks and Hospitals.—General sanitary condition of both was good. Occasionally the sanitary condition of the vicinity was objectionable, but this was promptly remedied on representation.

Accommodation in barracks reported good and, as a rule, sufficient. At Enniskillen some overcrowding existed, which was brought to notice, but could not, for military reasons, be rectified. No bad results occurred.

Accommodation for the sick everywhere sufficient except at Belfast, where it had to be supplemented by the appropriation of a barrack room. Certain improvements in connexion with the hospitals at Newry, Dundalk, and Londonderry are necessary and have been brought to notice.

United Kingdom.

Water supply.—Generally good and ample. Complaints as to quantity were made at Armagh and Londonderry. The defect has been remedied at the former and improved at the latter station. At Dundalk the water is obtained from a Norton's tube well and is reported to be very hard. This could be remedied in time, as municipal water works are in course of construction and will be completed in 18 months. The means for ablution are sufficient; a new bath room has been built at Cavan, and hot water laid on to the soldiers' baths at Armagh, Belfast, Londonderry, and Omagh. In addition to these, numerous improvements of various kinds have been effected in the district during the year.

Dublin District.

Deputy Surgeon-General J. J. Thompson, Principal Medical Officer, reports that the troops enjoyed fairly good health during the year. Twenty cases of scarlet fever and a similiar number of enteric fever were recorded. The former were mild in type and confined to Dublin. The occurrence of these diseases could not be traced to insanitary conditions in barracks. During March, April, and May pneumonia of a somewhat epidemic character prevailed in 2nd Battalion Scots Guards, stationed at Richmond barracks, causing 36 admissions and 3 deaths. The weather at the time was cold and variable, and keen east winds prevailed. The matter was carefully investigated but without satisfactory results.

Barracks and Hospitals.—Barrack accommodation satisfactory except at Galway, where the "Castle" and "Shambles" barracks are reported to be old and faulty in construction. The hospital accommodation at Dublin is limited. This defect is met by the transfer of surplus cases to the Curragh. The establishment of a regimental sergeants' mess on the ground floor of the Richmond barracks hospital is a faulty arrangement, as it curtails the space required for the sick and is objectionable in other ways. Efforts have been made to rectify this but without success.

Water supply reported good and abundant, and the sanitation of barracks and hospitals satisfactory.

Conservancy arrangements good except at Richmond barracks, where the means for removal of night soil are defective. This was brought to notice and to a certain extent remedied.

The *drainage* at Richmond barracks is bad and difficulties exist with regard to its improvement. At Naas the barrack drainage has been greatly improved.

During the year numerous improvements have been effected in the enlargement of barrack rooms and hospital wards, and in the ventilation, drainage, conservancy, and ablution arrangements connected with barracks.

Cork District.

Deputy Surgeon-General Skeen, Principal Medical Officer, reports that the health of the troops was good and the sanitary condition of the barracks and other buildings occupied by them satisfactory. At Limerick an outbreak of enteric fever occurred in the early part of the year, attributed to drinking water contaminated with sewage gas conveyed from a yard drain through an overflow pipe.

Barracks and Hospitals.—These buildings afforded satisfactory accommodation for the troops. No overcrowding occurred. During the year four huts were erected at Tralee, two for the accommodation of soldiers, one as a recreation room, and one as family quarters for three families.

United Kingdom.

Latrines are on the dry earth system in the majority of cases; on the water system in a few, while cesspools still exist at one or two small stations. The water supply was derived from various sources, local water companies, wells, springs and streams, and rain water stored in tanks. The quality was, as a rule, good and the amount sufficient for all requirements. At Buttevant spring water was substituted for the well water previously used owing to the impurity of the latter. At Tralee water has been laid on to all buildings.

Affections of the air passages and chest are reported to have been prevalent during the winter months, and the addition of a light flannel or jersey to the kit, as well as a more frequent use of the greatcoat, are recommended by the Principal Medical Officer of the district. In addition to the huts erected at Tralee, disinfecting chambers were constructed at Cork and Fermoy, and were in frequent use during the prevalence of scarlet fever. Minor improvements were also effected at several stations, chiefly in connexion with the conservancy and drainage of the forts in Cork harbour.

Curragh District.

The Principal Medical Officer reports that the general sanitary condition of the Curragh camp and Newbridge was satisfactory, and that no admissions to hospital were traceable to any sanitary defects.

The huts generally were in good order, but many are old, some have been removed and replaced by concrete huts. Owing to the elevated and exposed situation of the camp it is difficult to keep the old wooden huts warm. The drainage is generally satisfactory at Newbridge; thorough examination of all the drains was made and all defects remedied.

As in the previous year many complaints were made regarding the working of the sewage farm to the south of the camp; an inquiry was held and the matter was still under consideration.

Improvements in ventilation were carried out at the garrison canteen.

The effects of the course of training undergone by the recruits in the gymnasium at the Curragh are favourably reported on.

III.—ON THE HEALTH OF THE TROOPS SERVING IN THE MEDITERRANEAN.

Sickness and Mortality.

I.—GIBRALTAR.

Gibraltar.

The average strength of the warrant officers, non-commissioned officers, and men serving in the garrison during the year was 4,712. The composition of the force was as follows:—Seven batteries Royal Artillery, three companies Royal Engineers, 2nd Battalion Durham Light Infantry, detachments of Departmental Corps and Garrison Staff, these were present throughout the year; the 1st Battalion North Lancashire Regiment left the garrison for India on the 15th January, the 2nd Battalion Essex Regiment on the 21st February for Malta, and the 1st Battalion East Surrey Regiment left for India on 22nd December, having arrived on 5th March; the 5th Company, Royal Engineers, arrived on 5th February, the 2nd Battalion Royal Dublin Fusiliers on 15th January, the 2nd Battalion Oxfordshire Regiment on 21st August, and the 1st Battalion Royal Fusiliers on 22nd December, these were still serving in the garrison at the close of the year.

The total number of admissions into hospital was 4,556; the deaths, including those of 3 invalids after arrival at home, were 19, and the average number constantly sick was 262·25. The ratio of admission was, therefore, 966·9 per 1,000, that of mortality 4·03, and that of constant inefficiency through sickness, 55·65 per 1,000. Compared with the results in the previous year there is an increase of 71·8 per 1,000 in the admission rate, but a decrease of 1·67 in the death rate, and one of 6·04 per 1,000 in the constantly sick rate; and in comparison with the average rates for the preceding 10 years an increase of 229·5 per 1,000 is observed in the admission rate, and one of 11·43 in that of constantly sick, but a decline of 2·90 per 1,000 in the mortality rate.

The average sick time to each soldier was 20·37 days, and the average duration of each case of sickness 21·06 days, being shorter than the corresponding periods in the preceding year by 2·15 days and 4·10 days respectively, but the former was longer than that of the average of the preceding 10 years by 4·23 days, and the latter shorter by ·83 days.

The more important of the health statistics of the corps which served in the garrison during the year will be found in Abstract XLII., but, as remarked by the medical officer in charge, Station Hospital, Brigade Surgeon S. Fuller, the comparative value of the statistics of the different regiments is this year considerably diminished by the number of changes that have taken place in the composition of the force, some of the regiments having been but a few weeks in garrison. Of the corps which have been in the command the whole year, or nearly so, the 1st East Surrey Regiment shows the highest rates of prevalence of sickness and of mortality, and the 2nd Durham Light Infantry the lowest rate of mortality, the Artillery having the lowest admission rate. High invaliding rates in the North Lancashire, Essex, and Berkshire Regiments were caused by the necessity of sending sick men home when these regiments proceeded to Egypt or India.

Brigade Surgeon Fuller, alluding to the increase in the total admission rate, remarks that, "the reason must be looked for in the frequent changes "in the composition of the garrison. Partially acclimatised regiments have "been sent away, leaving behind a number of sick and weakly men, and "young regiments have replaced them, bringing with them a considerable "amount of venereal disease. However, notwithstanding the high admission "rate the year was a healthy one, the type of fever was, as a rule, mild, and "the mortality the lowest on record."

The admissions, deaths, invaliding, &c. in the various classes and orders of diseases will be found in Abstract No. II.

Gibraltar.

GENERAL DISEASES.—The admissions for diseases of the *febrile group* number 841, and the deaths six, being in the ratios of 178·4 and 1·27 per 1,000 respectively, the former being slightly higher than the corresponding rate in the preceding year, and the latter lower by ·84 per 1,000; both rates are, however, considerably lower than the average similar rates for the preceding five years. Eruptive fevers caused four admissions, one for small-pox, which was at the time very prevalent among the civil population, the remaining three were for scarlet fever. Among continued fevers are returned three admissions and one death from enteric fever, against 12 admissions and five deaths in the preceding year. The medical officer in charge remarks that, "all the cases occurred in the month of January, and five of last year's cases "occurred in December. I mention this, as up to the 18th December the "water was very low in the tanks owing to an almost total absence of the "autumn rains, and the little water there was had become contaminated by "sedimentary deposit, &c. This was also the case when enteric fever was "very prevalent in 1882. With the erection of the two Normandy's patent "condensers in the Southport ditch, capable of condensing and äerating "18,000 gallons of water in 24 hours, this probable cause of disease is "removed." Simple continued fever and febricula furnished 830 admissions and five deaths, being in the ratios of 176·2 and 1·06 per 1,000 respectively, both being higher than similar rates in the preceding year, and than the average rates. The increasing prevalence of these fevers of late years is attributed to the frequent changes that have taken place in the garrison, and to the large per-centage of young soldiers in the regiments. It is remarked, however, that "though fever has been more prevalent this year than last, the number of "severe cases, or cases with complications, have been fewer. The tedious con-"valescence associated with rheumatic affections about the joints followed "many attacks, and in fatal cases the lesions found after death were similar to "those previously recorded." Paroxysmal fevers were represented by one case of ague, and other febrile diseases by a case of influenza and two of erysipelas.

Constitutional group.—898 admissions and five deaths, including three of invalids, are recorded; the admission rate, 190·5 per 1,000, is lower than in the previous year by 34·3, but still above the average; the death rate, 1·06 per 1,000, though slightly higher than in 1883, is fractionally below the average. 171 admissions, or 36·3 per 1,000, are returned for all forms of rheumatism; the rate of prevalence shows a decrease. Of the cases 20 were of the acute form, the remainder of the chronic or muscular varieties. Primary syphilis caused an admission rate of 127·1 per 1,000 as compared with 164·0 per 1,000 in 1883, showing a considerable decrease, but the rate is still above the average a good deal. The secondary form was at the rate of 21·2 per 1,000, slightly higher than in the previous year, but a good deal above the average. Including gonorrhœa and its sequelæ, the total admission rate for venereal affections amounted to 282·0 per 1,000, and the rate of constant inefficiency through these affections 17·17 per 1,000. The number of admissions for tubercular diseases was 26, and there were four deaths, including two of invalids; the admission rate, 5·5 per 1,000, is higher than usual. A case of cancer of the tibia was invalided home, but it proved fatal at Netley.

LOCAL DISEASES.—Diseases of the nervous system show a rate of prevalence of 6·6 per 1,000, which is above the average. Among the cases were eight of mental affection. There was one case of sunstroke, in which there was a fatal result. Ophthalmic affections gave a rate of 16·4 per 1,000, which is an increase, principally owing to the prevalence of conjunctivitis. Aural diseases, with a rate of 8·3 per 1,000, were much more frequent than usual, the average rate being 4·6. Diseases of the circulatory system show an admission rate of 10·4 per 1,000, which is above the average rate by 2·9. The prevailing affections were palpitation and valve disease. A case of aneurism of the aorta and one of aneurism of the innominate artery are recorded, both were invalided. One death occurred from fatty degeneration of the heart. The admission rate for respiratory affections, 35·5 per 1,000, is higher than in the preceding year by 7·6, but is very slightly above the average; there were 17 admissions for pneumonia with three deaths, and 10 admissions for pleurisy, with one case fatal; the remaining 140 admissions were due to bronchitis or bronchial catarrh. 517 admissions for diseases of the digestive system gave a ratio of 109·7 per 1,000, higher by 15·7 than in 1883, and by 18·4 than the average rate. There were no deaths. The prevailing diseases were tonsillitis, dyspepsia, colic, and diarrhœa, the two latter between them causing 165 admissions. The medical officer in charge remarks that "in August, when "cholera was epidemic in the south of Europe, diarrhœa, accompanied by colic "and vomiting, appeared in an epidemic form at this station. The attacks "were, for the most part, of short duration, averaging from 24 to 36 hours, "and were very amenable to treatment, but they were very general throughout "the garrison, few either civil or military escaping; it commenced about the "beginning of August, and lasted until the beginning of September, the "weather during most of the time being intensely hot. The severe cases were "characterised by violent diarrhœa, accompanied by cramps in the bowels "and legs, and incessant vomiting. I attribute the occurrence of this epidemic "to some peculiar atmospheric condition, and not to any insanitary state of "the barracks or town, or such cause." Diseases of the urinary system show an increased rate of prevalence, principally due to gonorrhœa, the admission rate for which was 124·6 per 1,000. Cutaneous affections were more prevalent than usual, but do not call for special remark.

Debility furnished 57 admissions; in most of the cases the condition was induced by a previous attack of fever. Twenty cases of alcoholism and delirium tremens are returned under the head of *poisons*. No death occurred.

Injuries.—A fatal case of multiple injury is recorded. An artilleryman was found to be missing, and on search being made his cap and a portion of skull were found at the bottom of a precipitous rock close to deep water near Europa Point. In the opinion of the court of inquiry the man had either fallen or thrown himself over the precipice. A death is returned under the head of concussion of the brain. The case was as follows. A man of the East Surrey Regiment was brought to hospital dead; it appears that during an altercation he was struck by another man on the left temple, and he fell dead. From the evidence it seems that death was instantaneous. At a careful post-mortem examination the only lesion found was a minute speck of blood on the floor of the fourth ventricle of the brain. Of the remainder of the numerous cases of injury, principally contusions, wounds, and sprains, none require special mention.

Surgical Operations.—Two minor operations are recorded, one for removal of a thumb and the other for the extirpation of a tumour, both had satisfactory results.

Invaliding.—The number of men invalided home was 156, and of men finally discharged 46, being in the ratios of 33·10 and 9·76 per 1,000 respectively, the former being greater than the corresponding ratio for last year by 9·67, and than the average rate for 10 years by 4·27; and the latter greater than in 1883, but lower than the average rate by 4·18 per 1,000. Of the men invalided home 10 were in their first year of service; 107 under five years, 22 between five and 10 years, and the remainder over that period. The principal causes of invaliding were fevers 41 cases or 8·70 per 1,000, rheumatism 16 cases or 3·40, circulatory affections 21 or 4·46, and debility 18 cases or 3·82 per 1,000. The disabilities of men finally discharged were diseases of the circulatory system 13 cases, mental diseases six, tubercular affections four, diseases of organs of locomotion four, debility three, ophthalmic affections three, injuries two, &c.

Officers.—The average strength was 153, the attacks of illness 86, deaths three, and invalided 10, the ratios to strength being 562·1, 19·61, and 65·36 per 1,000 respectively. The rate of prevalence shows a decline of 36·5 as compared with the previous year; the death rate, however, is higher by 12·81, and the rate of invaliding shows an increase of 10·94 per 1,000. The chief causes of sickness were fevers, for the most part uncomplicated, except with rheumatic affection in the convalescent stage. Of the three deaths one was from sunstroke, one from enteric fever, and the third from paralysis.

Women.—The average strength of the women was 311, the number of attacks of illness 123, and there were two deaths, being in the respective ratios of 395·5 and 6·43 per 1,000; the former shows an increase of 27·7 and the latter a decline of 3·60 as compared with 1883. The principal cause of sickness was fever, under which head one fatal case occurred. The second death was caused by peritonitis.

Gibraltar.

Children.—The average strength is returned as 575, and the number of admissions 213, which is at the rate of 370·4 per 1,000, being 37·1 higher than that in the previous year. Thirty deaths occurred, giving a ratio of 52·17, which shows an increase of 23·65 per 1,000. Among the admissions were 26 of measles with three deaths; two scarlet fever; 40 other fevers, three cases fatal; 15 bronchitis, three deaths; five of croup, with one death; 18 of teething, with two deaths. Among the remaining fatal cases were four cases of tabes mesenterica, seven of convulsions, one of anæmia, one of meningitis, two of enteritis, and one of pneumonia, diarrhœa, and debility respectively.

Sanitary Conditions.—The Principal Medical Officer, Surgeon-General A. H. Fraser, states that "the reports from the different medical officers doing duty " at Gibraltar in the year 1884 do not point to any special causes of disease, " and beyond referring to the recommendations in the detailed sanitary reports " for the year I have no suggestions to offer.

"The drainage and general sanitary condition of the barracks, hospitals, &c., " and their vicinity, have been satisfactory on the whole. The rations have " been good, of sufficient quantity, and no change has been made; the means " of cooking have been satisfactory. The clothing and bedding of the troops " have been of good quality, and suited to climate and season. The effect of " gymnastic training on the health of the troops has been highly satisfactory.

"The following is a concise statement of the leading sanitary improvements " effected during the year:—

" *Casemate Barracks.*—Ventilation of school mistresses' quarters im- " proved.

'*Catalan Bay.*—A defective drain relaid in concrete.

" *Town Range.*—A tank for storage of rain water has been provided at the " officers' quarters, and also additional watercloset accommodation.

" *Wellington Front.*—Additional ablution accommodation has been provided. " The married quarters have been improved by addition to and enlargement " of windows.

" In the *South Barracks* fire-places have been provided in all the rooms.

"*Brewery Barracks.*—Dampness in the married quarters next the sea has " been remedied by the erection of an end wall of slate.

" *Europa.*—A latrine has been provided for the canteen, and the ridge venti- " lation generally improved.

" In the *Station Hospital* a watercloset has been provided, and the chimney " stack raised to remedy smoke nuisance."

II.—MALTA.

Malta.

The average strength of warrant officers, non-commissioned officers, and men serving in Malta during the year was (with the exception of the Royal Malta Fencible Artillery) 4,637.

The troops comprising the garrison were 7 batteries of Artillery, 1 company Royal Engineers, 2nd Battalion Royal Sussex Regiment, 1st Battalion Shropshire Light Infantry, and detachments Commissariat and Transport Corps, Medical Staff Corps, and Ordnance Store Corps; these were present throughout the year. The following present at the beginning of the year left during its course; one battery Royal Artillery, and the 1st Battalion South Staffordshire Regiment on the 22nd February, the 1st Battalion Yorkshire Regiment on the 4th August, and the 2nd Battalion Royal Munster Fusiliers on 4th March. The following arrived during the year: 2nd Battalion Royal Irish Regiment on the 10th March, 1st Battalion Yorkshire Regiment on the 14th March, 15th company Royal Engineers on the 17th March, and 1st Battalion Hampshire Regiment on 2nd August, besides details and drafts at various dates.

The total number of admissions into hospital was 3,897, and of deaths, including those of two invalids after arrival at home, 43. The average number constantly sick was 258·93. The annual ratios resulting from these figures are for admissions 840·4 per 1,000, mortality 9·27, and constantly sick 55·84 per

1,000. Compared with the corresponding rates for the preceding year there is an increase in that of admissions of 75·7, and in that of constantly sick one of 2·36; the death rate is also fractionally higher. In comparison with the similar average rates for the preceding 10 years there is a decrease of 20·1 per 1,000 in the admission rate and a fractional decrease in the rate of mortality, but there is an increase of 7·91 per 1,000 in the constantly sick rate. *Malta.*

The average sick time to each soldier was 20·43 days, and the average duration of each case of sickness 24·31 days; the former being longer than the corresponding period in the previous year by ·91 days, and than the average for the preceding 10 years by 2·94, while the latter is shorter than in 1883 by 1·22 days and longer than the average decennial duration by 3·98.

The more important of the health statistics of the different regiments and corps during the year are shown in Abstract XLII.

Surgeon-General J. Sinclair, Principal Medical Officer, remarks that "the "admission rates of the 1st Yorkshire and 1st Hampshire Regiments were very "high, and averaged 1734·3 and 1601·9 per 1,000 respectively; these two regi- "ments arrived in the command during the year; the first named only remained "a little over four months, the second arrived in the month of August, the "season when most cases of fever occur. The admission rates of the 1st "South Staffordshire Regiment and the Southern Division Royal Artillery "were respectively 1116·2 and 1100·0 per 1,000, but they were only a short "time in the command, having left for Egypt in February. The lowest rate "of admission in the Royal Artillery was in the Scottish Division 294·7, and "among the regiments, in the 1st Shropshire Light Infantry 591·7 per 1,000. "The Royal Engineers stand highest for the mortality rate, 33·33; the next in "order being the Royal Irish Regiment, with 16·15 per 1,000. The highest "rate of invaliding occurred in the 1st South Staffordshire Regiment, 116·77 "per 1,000, but this is accounted for by a number of men being found unfit "for active service when the regiment proceeded to Egypt. The constantly "sick rate for the South Staffordshire Regiment was 116·28, being the "highest. The same regiment also shows the longest sick time to each soldier "and duration of each case of sickness, the Southern Division Royal Artillery "being next in order."

The admissions, deaths, and invaliding, &c. under each class and order of disease are shown in Abstract No. III.

GENERAL DISEASES.—*Febrile group.*—The total number of admissions was 737, and of deaths 23, while the average number constantly sick was 67·76; the ratios per 1,000 are therefore 158·9, 4·96, and 14·61 respectively. Compared with the corresponding rates for the preceding year an increase of 29·4 per 1,000 has occurred in the rate of admission, one of 1·84 in that of death, and one of 2·89 in that of constantly sick; but in comparison with average similar rates for the previous five years a decrease in the rate of prevalence is observed equal to 21·0 per 1,000, while there is an increase in the rates of mortality and constantly sick.

Eruptive fevers show four admissions, one for measles and three for scarlet fever, the latter occurred in young soldiers quartered in Verdala barracks, the cases were isolated and no further spread of the disease occurred.

Enteric fever caused 94 admissions and 22 deaths (equal to 51 per cent. of the deaths from all causes). There is a decrease in the rate of prevalence of the disease, 20·3 per 1,000, as compared with that in the preceding year, equal to 5·7, but an increase in the rate of mortality, 4·74 per 1,000, of 1·05, and both admissions and death rates are above the average. The per-centage of deaths to attacks, 23·4, is considerably greater than in the year 1883, the increase amounting to 9·23 per cent. Of the total number of cases, 46, with 11 deaths, occurred at Cottonera, 36 cases, 9 fatal, at Valletta, 6 cases, 2 fatal, at Forrest, and 6 cases at Civita Vecchia. The medical officer in charge at Cottonera remarks that "the disease was of a severe type, occurring in young "soldiers, the average age of the fatal cases was $22\frac{5}{12}$ years, and service two "years. The greatest number of cases were admitted in May, June, and July, "with almost a total cessation of the disease in August, September, and "October, the months when it is usually most prevalent. It is difficult to "account for this as all the usual conditions remain the same. Every barrack "in the district contributed to the disease. It is remarkable that only two

Malta.

"cases occurred among the women and children, occupying the same quarters "and with the same water supply. I am of opinion that this disease is "seldom contracted in barracks but in the very insanitary houses of the "natives which the soldiers frequent." The Principal Medical Officer concurs in this opinion, and states that he represented the matter to the authorities, with the result that 44 grog shops in the Cottonera district were put out of bounds for the troops until further orders, as the water in the tanks was reported to be polluted and unfit for drinking. There was a large number of admissions in the Valletta district in the month of November, 14; and the medical officer in charge writes that there is no cause to assign for this beyond the heavy and continued rains which much disturbed the drinking water. The rainfall in that month was 5·65 inches greatly in excess of the average of the corresponding months in several years. Simple continued fever and febricula caused an admission rate of 114·5 per 1,000 in excess of that of the previous year by 18·2, but still a good deal below the average. The medical officer at Cottonera states that these fevers were generally of a mild character, the result of climate, but some cases became very weak and anæmic, necessitating change to the Sanitarium, Civita Vecchia. He adds his opinion that some few of the cases might have been in reality mild cases of enteric fever.

Paroxysmal fevers caused 99 admissions or 21·3 per 1,000, a great increase over the corresponding rate in 1883, which was only 3·9. It is also much above the average. Ague caused 13 of the admissions, mostly men returned from Egypt, and remittent fever 86, of which 43 occurred at Cottonera and 38 at Valletta. The cases were mostly very tedious, and all had to be sent to the Sanitarium before any real improvement took place.

Other diseases of the febrile group caused 9 admissions, of which two were cases of diphtheria and three of erysipelas, the latter being mild. Of the cases of diphtheria, one occurred at Valletta and recovered, and the other at Fort Ricasoli was under treatment at the close of the year.

Constitutional group.—573 admissions and 6 deaths are recorded, being in the respective rates of 123·6 and 1·29 per 1,000. Compared with the corresponding rate for the preceding year the rate of prevalence is increased by 18·0, and compared with the average rate it is increased by 35·8.

Rheumatism caused 160 admissions, of which 41 were for the acute form; the rate per 1,000, 34·5, is higher by 8·0 than that in 1883, but is very little above the average. A good many of the cases it is stated were sequels to attacks of fever.

The admission rate for primary syphilis was 45·1 per 1,000, which, though a decrease of 17·1 per 1,000 on the rate for the previous year, is still above the average of the five preceding years. The rate for secondary syphilis, 28·3 per 1,000, is higher by 19·6 per 1,000, than that in 1883, and by 18·5 than the average. The Medical Officer at Cottonera states that the cases at that hospital were not severe, were generally contracted at home, and yielded to mild treatment.

Including all forms of venereal disease the rate of admission was 125·4 per 1,000, and the rate of constant inefficiency 9·78, both being a little above the corresponding average rates, but below those of the preceding year.

Tubercular diseases caused 47 admissions, 38 being cases of phthisis pulmonalis, of which five were fatal, one case being that of an invalid after having left the island. The admission rate, 10·1 per 1,000, is nearly twice that in the previous year, and is also above the average. The rate of mortality was 1·08 per 1,000.

Other diseases of the constitutional group caused 26 admissions and one death. The cases were one of scirrhus cancer of the liver, which terminated fatally, one of lupus, and 24 of anæmia, all of which occurred in the Cottonera district, and were chiefly the result of fevers.

Local Diseases.—Diseases of the nervous system caused 83 admissions but no death. The rate of prevalence, 17·9 per 1,000, is higher than that of the preceding year by 4·7, and of the average of the five previous years by 5·5 per 1,000. Among the cases were one of sunstroke, 10 of mental affection, 26 of sciatica, and 29 of neuralgia, the latter are stated to have been principally sequel of fevers. Diseases of the eye and ear caused admission rates of 15·1 and 10·4 per 1,000 respectively, both somewhat below average rates.

Malta.

Diseases of the circulatory system were at the rate of 30·0 per 1,000, which is higher than that of the preceding year and considerably above the average. Among 139 cases in all were 86 of palpitation, 24 of valve disease, and 11 of hypertrophy of the heart. The Principal Medical Officer attributes the high rate of prevalence of these affections in great measure to the number of cases of palpitation in young soldiers induced by excess, and partly to the number of men rejected for cardiac disorder at the inspection of regiments for active service in Egypt. An invalid died at Netley from fatty degeneration of the heart. Respiratory affections were at the rate of 37·3 per 1,000, somewhat higher than that in 1883, but slightly below the average rate. Among the cases were 34 of pneumonia, concerning which the Principal Medical Officer remarks that "the disease chiefly occurred among the young soldiers of the 2nd Royal "Irish Regiment, which arrived in the month of March from England, 15 "cases were admitted into hospital immediately after the regiment disem-"barked, and 14 were transferred from hospital on board ship." Three deaths occurred, two from pneumonia and one from pleurisy. The rate of prevalence of digestive affections, 111·7 per 1,000, is lower by 2·0 than in the previous year, and than the average rate by 21·7. Tonsillitis and dyspepsia each caused about a fifth of the total number of cases treated, the former probably due to chills and the latter mostly the result of over indulgence in drink. Among the prevailing affections were dysentery 20 cases, jaundice 32, and diarrhœa 72 cases. One death occurred from dysentery. Among diseases of the urinary system it is observed that the admission rate for gonorrhœa, 42·9 per 1,000, is lower than in 1883 by 16·5, and than the average rate by 23·1, but there is no great difference in the other affections of this system. Two deaths occurred, both from Bright's disease. The rates of admission for the remaining orders of local diseases are all somewhat increased as compared with those corresponding in 1883, but none of them call for special remark.

Debility.—Under this head 48 admissions are returned, being at the rate of 10·4 per 1,000 as compared with 17·3 in the previous year and 18·8 the average rate. The cases were chiefly due to the occurrence of fevers or to the influence of climate.

Poisons.—Thirty-one admissions are recorded, resulting from alcohol; of these two cases are returned as delirium tremens. Two deaths occurred, one from alcoholic poisoning and the other from delirium tremens.

Injuries.—Two admissions for multiple injury are recorded; one case was that of a gunner who fell down a shaft at Lower St. Elmo Barracks, 22 feet deep, the other was that of a man of the 1st Hampshire Regiment, who fell into the fosse at Porta Reale, sustaining severe injuries; both the above, however, did well. A death from multiple injury happened as follows:—A man of the 2nd Royal Munster Fusiliers fell from the ramparts at Polverista Gate during the night. There was no evidence to show how he met with his death, but it was concluded that he had been drinking and walked over. A death also occurred from accidental drowning in the Quarantine Harbour, at the back of Lower St. Elmo, a lengthened attempt at resuscitation was made but with no avail. Local injuries caused 492 admissions and three deaths, the admission rate, 106·1 per 1,000, though higher than in 1883, is about the average. The principal causes of admission were contusions, wounds, and sprains, and there were 14 cases of fracture. Two deaths occurred from fracture of the skull. In one case a private, 1st Yorkshire Regiment, was found dead in the square at Lower St. Elmo Barracks; death is supposed to have been caused by a fall from a window; in the other case a corporal, 2nd Royal Irish, accidentally fell into the ditch at Fort Talsile, a distance of 25 feet. There was also a death from gunshot wound, self-inflicted, a sergeant, 1st Shropshire Regiment, while in a state of unsound mind, induced by domestic trouble, shot himself through the head with his rifle.

Surgical Operations.—None are recorded beyond a minor one for fistula in ano, which resulted satisfactorily.

Invaliding.—141 men were invalided home, and 83 were finally discharged during the year, being in the ratios of 30·41 and 17·89 per 1,000 respectively. Compared with the corresponding rates in the preceding year there is an increase in the former of 9·16, and in the latter of 10·52 per 1,000, but there is little variation in comparison with the average similar rates for the preceding decennial period.

Malta.

The principal causes for which men were invalided home were fevers, phthisis pulmonalis, cardiac, and nervous affections. Twenty-five men, who had suffered from enteric, paroxysmal, or other fevers, were sent home for change of climate, being in the ratio of 5·39 per 1,000 of strength. Twenty-five men also were invalided home on account of phthisis pulmonalis. In the opinion of the medical officer in charge at Cottonera the climate acts unfavourably on this disease. Seventeen men were sent home on account of valve disease, and six on account of hypertrophy of the heart, and 10 for other affections of the circulatory system, the total rate being 7·11 per 1,000. Of 11 cases of invaliding, 2·37 per 1,000, on account of nervous diseases, 9 were mental affections. Compared with the previous year invaliding for fevers, phthisis pulmonalis, and cardiac disease has increased, but there is a decrease in invaliding for nervous affections. With regard to the remaining orders of diseases invaliding was not numerous in any, nor do the rates differ materially from those corresponding in the foregoing year. The principal causes of final discharge by invaliding were diseases of the circulatory system, 26 cases or 5·61 per 1,000; phthisis pulmonalis 13 cases or 2·80 per 1,000; mental diseases 12 cases or 2·58 per 1,000; diseases of the digestive system, eye, and ear 5 cases each, 1·08 per 1,000; also debility and injuries each 4 cases, ·86 per 1,000.

Officers.—The average strength of officers was 161. There were 87 cases of illness and 5 deaths, and 10 officers were invalided home. The ratio of attacks of illness to strength was 540·3 per 1,000, that of mortality 31·05, and that of invaliding 62·11. The admission rate is higher than the corresponding rate in the previous year by 51·3, and the death rate by 23·76 per 1,000, while the invaliding rate is lower by 25·48 per 1,000. The principal diseases were fevers 31 cases, and digestive disorders 13, also injuries 13 cases. The deaths were caused by meningitis, gout, phthisis pulmonalis, acute rheumatism, and extravasation of urine, one case respectively. The causes of invaliding were fevers four cases, and sunstroke (contracted in Egypt), hepatitis, acute rheumatism, phthisis pulmonalis, dysentery, and acute synovitis, one case respectively.

Women.—In an average strength of 281 there were 251 cases of sickness and 8 deaths, being in the ratios of 893·2 and 28·46 per 1,000 respectively; the former is lower than the corresponding rate in 1883 by 102·8, but the latter higher by 16·56 per 1,000. Nine women were invalided home. The prevailing diseases were fevers 44 cases, rheumatism 7, anæmia 13, nervous and respiratory affections, of each 9 cases, and digestive disorders 36. There was one case of diphtheria, and only one of enteric fever. Four deaths were caused by phthisis pulmonalis, one by continued fever, and three occurred in childbirth.

Children.—The average strength was 451, and there were 306 cases of sickness and 37 deaths, the rate of prevalence of sickness was, therefore, 636·1 and that of mortality 76·92 per 1,000. Compared with the corresponding rates in 1883 there is a considerable reduction in both, 253·6 in the former and 28·59 in the latter case. There were 8 cases of diphtheria, two of which ended fatally, and 3 of mumps of a severe character with fatal result in two instances. The prevailing diseases were febrile affections, tubercular diseases, disorders of the digestive system, bronchial affections, debility, and injuries; one of the latter was a case of multiple injury, from a fall of 40 feet, which ultimately recovered. Death was also caused by fevers in one case, diphtheria 2 cases, mumps 2, hereditary syphilis 1, scrofulous affections 8, meningitis 1, respiratory diseases 5, digestive disorders 14, premature birth 2, and debility 1 case.

Sanitary Conditions.—Surgeon-General J. Sinclair, Principal Medical Officer, reports that the sanitary condition of the barracks and hospitals generally has been well attended to, and any sanitary defects as far as possible remedied. Some overcrowding was observed in one or two of the barracks, as at Verdala, Marsamuscetto, and Lower St. Elmo, the number of men occupying the rooms was consequently reduced, and during the summer months tents were pitched in which a certain number of men slept at night; and, further, when the possible advent of cholera, at the time existing on the shores of the Mediterranean, was feared, detachments were quartered in the outlying forts of Leonardo, Tal Sile, and Delimara. The ventilation and construction of some of the barracks, as at Lower St. Elmo, St. James' Cavalier, are defective; but the faults being of a radical nature but little improvement can be expected.

Malta.

The drainage of the various barracks is generally fairly good, but the sanitary condition of the vicinity of some of them is very unsatisfactory, as they are situated in densely populated localities, and are closely surrounded by dirty, low-class houses. The latrines and urinals are generally in a good sanitary condition, though the construction and ventilation of some are defective. The bath and ablution rooms are fairly satisfactory. The kitchens are, generally speaking, well fitted with appliances for varying the cooking, but the construction and ventilation of some are faulty. The rations were good, and no change occurred in their composition. Fresh meat was issued to the troops on six, and preserved meat on one day in the week.

The water supply is from two sources—rain water, collected from the various rising surfaces, and water conveyed by the aqueduct from the elevated ground in the country; the water from both sources is stored usually in underground tanks, in reaching which, as well as afterwards, it is extremely likely to be contaminated with impurities. This question of water supply is unsatisfactory. A special report has been made, and the matter is engaging attention. The water supply at Civita Vecchia failed in the month of July, and it was necessary to cart water to the place. Clothing has been generally suited to the requirements, but it has been represented that the serge frock is too light. An extra blanket was issued during the winter months, the weather being very cold.

The hospital accommodation has been satisfactory, but as there is no detached ward for the treatment of infectious cases, it is necessary to pitch marquees in the hospital grounds for their reception. It was discovered that the ventilation of the hospital drainage was imperfect, and that in consequence a source of danger to the occupants of the hospital at Cottonera. Attention was called to the matter, and ventilators have been erected at the various junctions of the hospital and main drains.

The pumping arrangement by windmill, at Lower St. Elmo, for flushing the main drains of Valletta became ineffective, and pending the erection of steam pumping apparatus flushing was with difficulty and inefficiently carried out. During the year under report various sanitary services have been carried out in the command, amongst them improvements in lighting, ventilation, warming, facilities for ablution, and also as regards drainage and water supply. Certain new offices have been constructed in some of the barracks, and various sanitary improvements carried out in existing buildings.

ROYAL MALTA FENCIBLE ARTILLERY.

The average annual strength of this corps was 347 non-commissioned officers and men; among these were 229 admissions to hospital, no deaths occurred, but the number constantly sick was 7·70; the admission rate per 1,000 was therefore 659·9, which is lower than that in 1883 by 20·3, and than that of the average similar rate for the preceding 10 years by 11·5 per 1,000. The rate of constant inefficiency through sickness, 22·19 per 1,000, is lower than in the previous year by 1·06, and than that of the decennial average by 3·93 per 1,000. The average sick time to each soldier was 8·12 days, and the average duration of each case of sickness 12·30 days, the former being shorter by 1·28 and the latter by 1·52 days, as compared with the corresponding period in the preceding year.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract No. IIIA.

GENERAL DISEASES.—*Febrile group.*—33 admissions are shown, all for febricula, as compared with 51 in the preceding year; the cases were principally of a mild character. The rate of prevalence was 95·1 per 1,000.

Constitutional affections were represented by 12 cases of rheumatism, being 34·6 per 1,000, and one case of cancer of the lip, which was excised with satisfactory result. No case of syphilis occurred.

LOCAL DISEASES.—A decrease of admission rate is noticed in most of the orders, especially in diseases of the digestive and cutaneous systems and gonorrhœa, but there is an increase in respiratory affections, the cases, however, 36 of bronchitis and one of pneumonia, were all of a mild nature. Among the disorders of the digestive system were a few cases of jaundice, but mostly mild in character, and said to have probably occurred from chills in the early months of the year.

Malta.

Local Injuries caused 44 admissions, mostly among newly enlisted men, two were cases of Colles's fracture of the radius.

Surgical Operations.—The following minor operations were performed with good and satisfactory results; removal of cancer from lip, amputation of supernumary toe, extirpation of a tumour and of a cyst, and operation for fistula in ano, one case of each.

Invaliding.—Four men were discharged the service by invaliding, as compared with 8 in 1883; the ratio per 1,000, 11·52, is about half the decennial average. The disabilies were acute mania, imbecility, palpitation, and debility, one case of each.

Officers.—The average strength was 19, there were 13 cases of sickness, and one death occurred from valvular disease of the heart.

Women and Children.—The average strength was 34 and 108 respectively, there were 11 cases of sickness among the former, and 27 with two deaths (one from anæmia and the other from debility) among the latter.

Sanitary Conditions.—The medical officer in charge, Surgeon L. Manché, M.D., states that "as to the sanitary conditions of the barracks nothing can "disapprovingly be said; the two rooms allowed to the detachment at San "Antonio Gardens have been cleaned, and hygienically improved to some "extent, but room exists for further improvements."

The cubic space per man was sufficient, and ventilation is satisfactory in the barracks and forts, but that of the latrines at Fort Lascaris is defective, but this was about to be remedied.

The rations are said to have been good, but the medical officer thinks the meat ration should be increased. The clothing of the men has been suited to the climate. The use of a flannel shirt instead of a cotton one has been adopted, with benefit to the health of the men.

Recruiting.—Out of 117 recruits inspected during the year, 68 were found fit and 49 rejected. Among the causes of rejection were 11 for defective vision, 10 for being under chest measurement, 8 for being under weight, and 6 for cardiac disease. The previous occupations of recruits inspected were labourers, &c. 75, tradesmen 22, mechanics 11, clerk 1, students 2, and boys under 17 years of age 6.

III.—Cyprus.

Cyprus.

The average strength of warrant officers, non-commissioned officers and men was 495; and the force was composed at the beginning of the year of the 31st company Royal Engineers, the head-quarters and a half battalion 1st Royal West Kent regiment, detachments of Departmental Corps and Garrison Staff. During the year the following changes took place: the company of Royal Engineers left on the 22nd June, and the infantry on 1st September, being relieved by the head-quarters and a half battalion of the 3rd King's Royal Rifles from Egypt.

The total number of admissions into hospital was 373, of deaths, including that of an invalid after arrival at home, 8, and of those constantly sick 15·73; being in the ratios of 753·5, 16·16, and 31·77 per 1,000. Compared with the corresponding ratios for the preceding year an increase has occurred in all, amounting to 247·7, 12·25, and 4·43 per 1,000 respectively; and in comparison with the average similar rates for the preceding five years there is a decrease of 218·9 per 1,000 in that of admission, but an increase of 6·20 in the mortality rate, and a decrease of 11·69 per 1,000, in that of constantly sick. The average sick time to each soldier was 11·63 days, and the average duration of each case of sickness 15·43 days, the former being longer by 1·65 and the later shorter by 4·30 days than the corresponding periods in the preceding year; and compared with the average periods the sick time is shorter by 20·87 and the duration of cases by 2·17 days.

The stations occupied by the troops were Nikosia, Polymedia, Limassol, and Mount Troodos. All the troops in the command, except a few necessarily left at the depôt, Limassol, were quartered on Mount Troodos from the middle of June to the middle of October.

In Abstract No. XLII. will be found the principal health statistics of the corps which served in the command. It will be noticed that the admission rate, and also the mortality rate for the King's Royal Rifles, are a good deal higher than those for the West Kent Regiment, doubtless due to the fact that the former arrived from Egypt in a weakly and comparatively sickly condition. The admission rate for the Garrison Staff and departments is favourable, being 343·7 per 1,000. The rates of mortality in the different corps are high, but this is due, it must be remembered, to the occurrence of a very few deaths in a small average annual strength.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract No. IV.

GENERAL DISEASES.—*Febrile group.*—As compared with the preceding year a considerable increase of prevalence of fevers is observed, the admissions numbering 129 as against 47, the rate of prevalence, 260·6 per 1,000, being nearly three times that in 1883, and not greatly less than the average rate for five years, which is swelled by the great prevalence of paroxysmal fevers in the first two or three years of the occupation.

While the prevalence of febrile diseases among the troops has been greater than in the preceding year, it is pointed out by the Senior Medical Officer that the general health of the island has also not been good, and that the natives have suffered severely from malarious fevers, and he states that this was owing to the heat acting on a country sparsely cultivated and denuded of trees, the subsoil of which is without drainage and in parts thoroughly water logged from the excessive rainfall last season.

Three cases of enteric fever were treated, they all occurred in the King's Royal Rifles, and the disease was no doubt contracted in Ramleh; one case was transferred from hospital on board ship on arrival of the regiment, and of the other two, one man was admitted 10 days, and the other 25 days, after arrival. One case proved fatal. 103 admissions are returned for febricula, being at the rate of 208·1 per 1,000, and 24 for ague, or 48·5 per 1,000, both rates being higher than in 1883. All the cases of ague were admitted between October and December, except two; 64 of the cases of febricula occurred at Troodos and 36 from one company; the cases were generally mild, and in the instance of the company referred to, it is stated that they were due to exposure without tents at night on the march from the plains to Troodos.

In the *constitutional group* of diseases there were 51 admissions, or 103·0 per 1,000, a slightly lower rate than in the previous year. Rheumatism caused only one admission; but 38 are recorded for primary syphilis, the rate of prevalence, 76·8 per 1,000, being lower than in 1883, and but very slightly above the average. Some of the cases were imported from Egypt, but the majority were contracted at Limassol or Nikosia. The secondary form of the disease caused 11 admissions, or 22·2 per 1,000. Including gonorrhœa and its sequelæ the total rate of prevalence of venereal affections was 198·0 per 1,000, and the average number constantly ineffective on this account, 12·16 per 1,000, is more than one third of the total rate of inefficiency through sickness. One case of phthisis pulmonalis occurred; the man was invalided, but died after arrival at home.

LOCAL DISEASES.—Nervous affections caused two admissions, one for paralysis and one for sunstroke, the last was invalided. Three cases of cardiac affection are recorded, and one man died suddenly out of hospital. Respiratory diseases caused 6 admissions, of which three were cases of pneumonia, two of pleurisy, and one of bronchitis. Two deaths occurred from pneumonia. Diseases of the digestive system numbered 40 cases, being at the rate of 80·8 per 1,000, which is more than twice that in 1883, but below the average rate for the previous five years. Among the cases were 10 of jaundice, but all slight, three of hepatic affections, with one death from abscess of the liver, and one case of dysentery, which was also fatal. Gonorrhœa caused a rate of 97·0 per 1,000, more than double that in 1883, and also above the average rate. Cutaneous affections were less frequent than in the former year.

Poisons.—Two cases of alcoholic poisoning were admitted, and one fatal case of delirium tremens occurred.

Injuries.—Out of 39 admissions for local injuries there were two for fractures and one for dislocation, the remainder consisted of wounds, sprains, and contusions. No case of self-inflicted injury occurred.

Invaliding.—17 men were invalided home, being at the rate of 34·34 per 1,000, which is higher than the rate for the preceding year by 18·71, and

Cyprus.

than that of the average of the preceding quinquennial period by 11·36. The causes of invaliding were sunstroke 5 cases, debility 4 cases, cardiac affections 2, and one case of dysentery, diarrhœa, pleurisy, phthisis pulmonalis, choroiditis, and psoriasis respectively. The number finally discharged the service by invaliding was 6, or at the rate of 12·12 per 1,000 as against nil in the previous year. The disabilities causing discharge were diseases of the circulatory system 2 cases, and tubercular affection, mental disease, respiratory disease, and local injury one case respectively.

Officers.—The average strength was 24, and there were 9 attacks of illness, five being due to febrile disorders, the rate of prevalence was 375 per 1,000. There was no death, and no officer was invalided.

Women and Children.—In an average strength of 29 women there were 41 admissions; the principal causes of sickness were fevers, 23 admissions being from this cause. The sick rate was 1413·7 per 1,000. No death occurred. The average strength of children was 48, and the number of admissions was also 48, the principal diseases were diarrhœa (of which there were 19 cases) and febrile affections.

Sanitary Conditions.—The Senior Medical Officer, Surgeon-Major Owen Owen, speaking of the different stations, shows that the sanitary arrangements at Troodos were generally satisfactory as regards conservancy, latrine arrangements, water supply, &c. Improvements were made in lavatory arrangements. During the season three drafts of 50 men each were sent as convalescents to Troodos from the military hospitals in Egypt. The Senior Medical Officer states that "a camp was formed for them about 800 feet " below the Troodos camp on a beautiful sheltered spot where the extremes " of temperature as felt above were much less marked. The men were " accommodated in double poled Indian tents. Most of them derived " considerable benefit from the elevated position, particularly those convales- " ing from enteric or malarious fevers and general debility from various " causes. Some chronic dysentery cases were sent over with the first batch; " these did not do so well. Cases suffering from organic affections of " the heart should not be sent to such a rarified atmosphere, and though " the temperature is low the sun has great power and sunstroke cases did " not seem to benefit." Polymedia camp is reported to continue in a very satisfactory condition and sanitation fairly well carried out and conservancy attended to. The drainage is now satisfactory, the drains cut about a foot deep in the limestone rock of the camp are very suitable and are fully flushed by the overflow of the reservoir.

Nikosia was only occupied from January to June by a company of infantry, but the sanitary condition of these barracks was very satisfactory.

At the Depôt Limassol are some two storied stone barracks, the lower storey being used as offices and stores. They are reported as being satisfactory. Among the sanitary improvements effected during the year may be mentioned the following:—At Polymedia a drain was constructed to carry off the water from women's wash-house, a bath was provided for the men, which is filled with part of the overflow water from the reservoir. A stone stable for 12 horses was erected. Repairs to men's kitchen carried out. At Limassol a reading and recreation room has been handed over for the use of the troops. Tailors' and carpenters' shops have have been completed. A latrine has been erected in the engineer's yard, and an open shed has been converted into a store. An ablution room was in course of construction in the engineer's yard and a carpenters' shop in the ordnance store yard.

IV.—ON THE HEALTH OF THE TROOPS SERVING IN THE DOMINION OF CANADA.

Sickness and Mortality.

Canada.

The only station in this command occupied by imperial troops was Halifax, where there was an average strength of 1,265 warrant officers, non-commissioned officers and men. The garrison consisted at the beginning of the year of three batteries, Royal Artillery; detachments Royal Engineers; 1st Battalion Yorkshire Regiment; 2nd Battalion Royal Irish Rifles; detachment 1st Battalion Royal Munster Fusiliers; detachments of Departmental Corps and Garrison Staff. The Yorkshire Regiment was removed on the 27th February without relief, and the detachment Royal Munster Fusiliers on 29th March. Drafts arrived for the Artillery and for the Royal Irish Rifles on November 1st.

The admissions into hospital numbered 985, the deaths 8, and the constantly sick averaged 64·28; the resulting ratios being, for admission 778·7, for death 6·32, and for constantly sick 50·81. Compared with corresponding rates in the preceding year an increase is observed in all, amounting in the case of admission rate to 28·6 per 1,000, of death rate to 1·84, and of constantly sick to 10·79 per 1,000; and in comparison with similar average rates for the previous 10 years the increase in these rates is equal to 72·6, ·65, and 16·27 per 1,000 respectively. However, though it appears from these figures that there was a greater prevalence of sickness and mortality in the year under report than usual, it must be pointed out with regard to the mortality that out of the 8 deaths recorded, 4 were due to violence or accident, so that the rate of mortality on account of sickness was only 3·16 per 1,000, which compares very favourably with the average rate, or with the rate for 1883. The average sick time to each soldier was 18·59 days, and the average duration of each case of sickness 23·88 days, being longer than the corresponding periods in the previous year by 3·98 and 4·41 days respectively; and also longer in both cases than those of the average of 10 years.

The most important of the statistics referring to the health of the different corps are shown in Abstract No. XLII. The highest rate of prevalence of sickness occurred in the Royal Irish Rifles, 837·8 per 1,000, very closely followed by the Royal Artillery with 818·8; the rate fell to 482·1 in the case of the Royal Engineers; while that for the Staff and Departments was 210·5 per 1,000, but the average annual strength was only 38. Of the deaths, 4 occurred in the Artillery, but none were due to sickness, 2 in the Royal Irish Rifles, and one in the Royal Engineers and Yorkshire Regiment respectively.

The admissions, deaths, &c. in the different classes and orders of diseases are given in Abstract No. V.

GENERAL DISEASES.—*Febrile group.*—The admissions under this head numbered 25, and there were no deaths. The rate of prevalence, 19·8 per 1,000, compares favourably with that of the preceding year, a decline of 2·6 being observed; and it is considerably below the average rate of the preceding five years. Three cases of scarlet fever occurred, the type was mild, and the patients speedily recovered; the disease was very prevalent amongst the inhabitants. Two admissions for enteric fever are returned; both cases occurred in men of the Engineers recently arrived from Bermuda, where the disease was undoubtedly contracted, as both men were ailing on their arrival at Halifax; in both cases satisfactory recovery ensued. Of other fevers, 10 cases of febricula are returned, and 4 of ague. There were also 6 cases of erysipelas, which did well.

In the *constitutional group* of diseases an admission rate of 177·1 per 1,000 is observed, which is higher than that in 1883 by 25·8, but just below the average rate. Rheumatism caused 78 admissions, of which 29 are returned as of the acute form. The rate of prevalence, 61·7 per 1,000, still shows a slight increase. Primary syphilis caused a rate of admission equal to 79·8 per 1,000, *Canada.*

which, though higher than in the previous year by 35, is fractionally lower than the average rate. The rate of prevalence of secondary syphilis, 28·5 per 1,000, shows a decline in both comparisons. Including gonorrhœa and its sequelæ the total ratio of admissions for venereal affections was 239·5 per 1,000, and the ratio of men constantly ineffective through these diseases 16·60 per 1,000, the former being 19·6 above the corresponding average rate, and the latter higher by 1·90 per 1,000; both rates are higher than those in the previous year. Very nearly one third of the number of men constantly sick was furnished by these affections. 8 cases of phthisis pulmonalis were admitted, and one fatal case occurred. One case of diabetes is returned.

LOCAL DISEASES.—A slight increase in the rate of affections of the nervous system is observed, which is due to the occurrence of 5 cases of mental disease; the other cases call for no remark, save one, a case of yellow softening of the brain, which originally resulted from local injury. Diseases of the circulatory system caused 13 admissions, among which were two cases of valvular disease of the heart. A decrease is noticed in the rate of admission for respiratory diseases, 61·7 per 1,000, as compared with 73·9; the admissions numbered 78, of which 69 were due to bronchial affections, and 6 to pneumonia, from which there was one death. The medical officer in charge, station hospital, states that "many of the patients from bronchial complaints ascribe their illness to "a cold caught on guard, and considering the heat, and often foul condition "of the air in the guard rooms, it is probable that these affections were contracted in that manner. On a cold wintry night a man just going on sentry "leaves a temperature of 60° or so for one approaching zero, and in consequence receives a chill." The rate of admissions for digestive disorders, 113·0 per 1,000, is only higher by 1·0 than in 1883, and but slightly above the average rate. More than one fourth of the admissions were caused by tonsillitis, and about that number by dyspepsia. The former disease is said to be very common among new arrivals, few of whom escape it, especially in the cold weather. The cases of dyspepsia are said to be often associated with intemperance. Among other digestive affections were one case of hepatitis and 8 of jaundice. An increase is observed in the admission rate for urinary affections, 140·7 per 1,000, which is due to the increased prevalence of gonorrhœa, for which, with its sequelæ, the rate equalled 131·2 per 1,000. Among other urinary affections were one of Bright's disease, and one of nephritis, which resulted fatally. Some increase is observed in the prevalence of affections of the cellular tissue, and of the cutaneous system, but none of the cases call for special mention.

Under the head of poisons are shown 8 admissions, seven of which were due to alcohol, which compares very favourably with the number in the preceding year when 40 cases were returned. The Principal Medical Officer, Deputy Surgeon-General W. Cattell, thinks this may be partly due to the great reduction in the strength of the troops quartered near the drinking haunts, as well as to the greater steadiness of the men. The other admisssion was due to fatal arsenical poisoning and was suicidal. A gunner, Royal Artillery, of good character, took some rat poison which contained arsenic. The only possible motive is said to have been fear of punishment on return after absenting himself without leave.

Injuries.—Two deaths occurred from drowning; the men, belonging to the artillery, were drowned while boating near the forts where their detachments were quartered. Two deaths occurred from local injuries, one was a case of suicidal gunshot wound, a non-commissioned officer, Royal Artillery, shot himself through the head with his carbine; it is said that he had been drinking heavily. The other death was due to fracture of the base of the skull, and happened to a man of the Royal Engineers from a fall of about 14 feet. The number of admissions for injuries was 107, and the rate of prevalence, 84·6 per 1,000, is less than usual. The cases were of a varied character, and the majority were slight, though some few were severe. A case of whitlow necessitated amputation ~~of a finger.~~

Invaliding.—32 men were invalided during the year, of whom 6 remained in Canada, and the remainder were sent to England. The ratio of those sent home was 20·55 per 1,000, which is less than in the previous year by 23·70, and than the decennial average rate by 3·63. The ratio of final discharge, 20·55 per 1,000, is above the average and the rate in the previous year.

Canada.

The causes of invaliding were principally urinary affections, 4 cases, nervous diseases 5, respiratory diseases 4, debility 3, phthisis pulmonalis 3, deafness 2, and rheumatism, syphilis, diabetes, synovitis, and injury, one case each. 26 were finally discharged, and the disabilities which necessitated it were tubercular diseases 6 cases, ophthalmic affection 3, diseases of the circulatory system 3, of the respiratory, urinary, and generative systems 2 each, debility 2, and diabetes, deafness, syphilis, synovitis, paralysis, and injury, one case respectively.

Officers.—In an average strength of 75 officers there were 21 attacks of illness, equal to 280·0 per 1,000, as compared with 335·8 per 1,000 in 1883. There was no death, but one officer was invalided. There was no special cause of illness.

Women.—The average strength was 96, and the number of attacks of illness 56, equal to a ratio of 583·3 per 1,000, a considerable increase on the rate of the previous year. Bronchitis and debility were the principal causes of illness. One death occurred from Bright's disease in a patient who had been ailing two years.

Children.—In an average strength of 222 children there were 81 attacks of illness and 5 deaths, being in the ratios of 364·8 and 22·5 per 1,000 respectively, both being lower than the corresponding rates in the preceding year. During the summer measles was prevalent, 33 cases, fortunately the type was mild and no death occurred, five cases of scarlet fever occurred; among other diseases bronchial affections and diarrhœa were most prevalent. Of the fatal cases, 3 were due to convulsions, one to croup, and one to caries of the spine, in this case the child had been a sufferer for years.

Sanitary Conditions.—The Principal Medical Officer reports that "the " general health of the troops does not appear to have been affected by any " insanitary condition. The several forts and barracks have been kept in a " satisfactory state as regards warming, lighting, and ventilation. Water " supply was of good quality and abundant. The ablution rooms have now " means for heating water in winter for necessary personal washing. At the " citadel, in winter, owing to its height, to loss of pressure, and through the " general outflow, to avoid freezing, sufficient water could not be depended on " for flushing purposes; earthclosets therefore were used and worked well, " and their general adoption has been recommended. Clothing was good " and adapted to the climate, and men have been allowed to grow their beards " during the last and present winter. Cooking has been satisfactory, and the " rations sufficiently varied.

"The sanitary works apart from general improvements have been chiefly " confined to drainage and necessary repairs. In the Citadel barracks the " conversion of some faulty waterclosets into earthclosets was effected, and " in the South barracks a new drain was made at the south-east angle of the " square; earthclosets were also built in the lumber yard."

With regard to climate, the Principal Medical Officer remarks that "the " earlier portion of the year was very changeable and unsettled, and the " spring cold and prolonged, with frequent rains, so that the short summer " was succeeded by a fine autumn. The following were the mean temperatures " during the winter months, January 20°, February 25°, March 25°, " November 24°, and December 21° Fah. The temperature fell on the 11th " December, and on nine separate days later in the month to or below zero, " on the 20th to 12°, and on the 21st to 11° below zero."

V.—ON THE HEALTH OF THE TROOPS SERVING IN BERMUDA.

Sickness and Mortality.

Bermuda.

The average strength of warrant officers, non-commissioned officers and men serving in Bermuda was 1,551, and the force was composed as follows:—Two batteries Royal Artillery, four companies Royal Engineers, the 2nd Battalion York and Lancaster Regiment, detachments of Departmental Corps and the Garrison Staff.

There were 958 admissions into hospital and 17 deaths, inclusive of that of an invalid after arrival at home, and the average number constantly sick was 50·25. The ratio per 1,000 of strength was, therefore, for admission 617·6, that of death 10·96, and of constantly sick 32·40 per 1,000. Compared with corresponding rates in the preceding year there is a slight increase in admission rate, 8·8 per 1000, but the death rate is more than double, owing to the occurrence of fatal cases in an outbreak of enteric fever. The constantly sick rate, however, declined by 4·48 per 1,000. In comparison with the average similar rates for the preceding decennial period there is a decline in admission rate of 13·5, and one in the rate of constant inefficiency through sickness of 1·56 per 1,000, but the rate of mortality, for the above mentioned reason, shows an increase of 3·46 per 1,000. The average sick time to each soldier was 11·85 days, and the average duration of each case of sickness 19·19 days, the former being shorter than the corresponding period in 1883 by 1·61 days, and the latter by 2·92 days. In comparison with decennial average periods also both are shorter, but only to a fractional extent.

Some statistics of the health of the different corps which served in the garrison during the year will be found in Abstract XLII. The highest rate of admission, 676·5 per 1,000, is found in the 2nd Battalion York and Lancaster Regiment, closely followed by the Royal Engineers with 668·7 per 1,000, while the Garrison Staff and Departments furnished the lowest rate, only 373·5 per 1,000. Four deaths, two from accident and two from enteric fever, in the Garrison Staff and Departments caused the highest rate of mortality, 48·19 per 1,000; the next rate was in the Royal Engineers, on account of four deaths, of which three were due to enteric fever; and the lowest rate occurred in the Artillery, 4·40. The rates of total inefficiency through sickness ranged from 38·36 per 1,000 in the Royal Engineers to 18·55 per 1,000 in the Garrison Staff and Departments.

The admissions and deaths, &c. in the various classes and orders of diseases are shown in Abstract No. VI.

General Diseases.—In the *febrile group* of diseases 111 admissions are returned, being in the ratio of 71·5 per 1,000, as compared with 34·9 in the previous year, and 45·5 in the preceding quinquennial average, this large increase is principally due to the occurrence of an outbreak of enteric fever, in which 62 cases occurred, 10 of them being fatal, the rates of prevalence and mortality to strength being 40·0 and 6·45 per 1,000 respectively, and the mortality to attacks at the rate of 16 per cent. The Principal Medical Officer, Deputy Surgeon-General C. Graves Irwin, M.B., remarks that "the appearance of this disease, almost entirely confined to Prospect, "would seem to have been connected with an excessive rainfall following on "an unusually dry summer, and the coincident impervious condition and "resulting accumulations in and around certain drains and catch pits used to "carry off the surface, washhouse, and urinal drainage. On these conditions "being rectified, and the old disused cesspits being emptied, deodorized, and "filled in, the disease gradually declined." The disease prevailed at Prospect Camp from the middle of August to the end of the year. The medical officer in charge at Prospect, after speaking of the causation of the disease in a similar manner to the above, states that although men were admitted from other stations in the district, he is of opinion that the disease in all cases was contracted at Prospect. The disease in most instances was of a very marked type, and in some instances complicated with pneumonia. 20 cases of simple continued fever were admitted at Prospect, but the medical officer states his belief that many of these cases were enteric fever in a mild form. 24 cases of febricula occurred, chiefly the result of climate, and paroxysmal fevers were represented by one case of ague. *Bermuda.*

In the *constitutional group* of diseases there were 156 admissions, and no deaths in the island. The rate of admission, 100·6 per 1,000, is less by about a third than that in the preceding year, though still above the average of the previous five years. The rate of prevalence of rheumatic affections, 34·8 per 1,000, shows a small increase, but there were only 3 cases of the acute form of the disease. The number of admissions for primary syphilis was 52, giving a rate of 33·5 per 1,000 as compared with 80·9 in the preceding year, and below the average; the rate of prevalence of the secondary form of the disease, 25·8 per 1,000, is about the same as in 1883, but above the average. Including gonorrhœa and its sequelæ, the admission rate for all forms of venereal disease, 84·4 per 1,000, was very little above the average rate, though considerably less than in the preceding year. The rate of constant inefficiency on account of these diseases, 6·11 per 1,000, is similarly slightly above the average, but less considerably than in 1883. 6 cases of phthisis pulmonalis and 2 of hæmoptysis are returned, and also the death of an invalid from the first-named affection after arrival at Netley.

LOCAL DISEASES.—Diseases of the nervous system caused 13 admissions, including 5 cases of sunstroke, 3 of epilepsy, and 4 of mental affection. Six admissions are shown for cardiac affections, and a death occurred out of hospital from aneurism of the aorta. 35 cases of inflammation of glands, chiefly inguinal, are recorded. The cause, it is said, could not be traced to syphilitic origin, and was probably due to strains on the works on the fortifications and roads, &c. Respiratory affections caused 47 admissions, chiefly bronchial affections, but seven cases of pneumonia are returned, of which one resulted fatally. Diseases of the digestive system caused 188 admissions, equal to a ratio of 121·2 per 1,000, which is in excess of that of the preceding year by 18·0, though below the average rate. The principal causes of admission were tonsillitis, dyspepsia, and diarrhœa, the last named causing half the admissions. The medical officer at Prospect states that this affection is at all times prevalent in Bermuda, but the large increase in the admissions was due, in his opinion, to the insanitary condition which prevailed at the station. He thinks that some of the cases may have been mild forms of enteric fever. Some of the patients were in hospital a considerable number of days, and the disease did not readily prove amenable to any treatment. Gonorrhœa caused an admission rate of 18·7, being below the average rate. Diseases of the cellular tissue and cutaneous system were more numerous than usual, and caused increased rates of admission, both as compared with those in the previous year and average rates. 16 admissions are shown under the head of poisons. Of these 11 were for alcoholic poisoning, 4 for delirium tremens, and one for animal poisoning, which proved fatal. A man partook of a large quantity of preserved lobster for supper; during the night he was attacked with violent pains and vomiting. He was taken to hospital, but died a few hours after admission.

Injuries.—3 deaths occurred from drowning, two men were capsized from small boats, and the third (a man on police duty at Hamilton) was found drowned. The verdict in all three cases was accidental death.

128 admissions for local injuries, chiefly from ordinary causes, call for no remark, except a case of severe concussion of the brain in a sapper, who fell from a ladder while lime washing the roof of a building. He made a complete and rapid recovery.

Invaliding.—There were no men invalided home during the year, as there was no transport available. This of course has slightly raised the average number constantly sick. Four men were finally discharged the service by invaliding, the disabilities being rheumatism, one case, cardiac disease, two cases, and urinary affection, one case.

Officers.—In an average strength of 63 officers there were 13 cases of sickness, the rate being 206·4 per 1,000, which is lower than the rate for the

Bermuda.

previous year by 106·3. The admissions were from various causes, but principally febrile affection. One officer died, and the cause of death is returned as general debility. Two officers were invalided.

Women.—The average strength was 108, the attacks of illness 59, being in the ratio of 546·3 per 1,000. There were 4 deaths, or 37·03 per 1,000. Both rates were considerably higher than in the previous year. The principal causes of sickness were fevers (9 cases enteric), diarrhœa, debility, &c. The deaths were caused by enteric fever in two instances, and by meningitis and premature birth in one respectively.

Children.—In an average strength of 195 there were 77 attacks of illness and 8 deaths, being in the ratios of 394·8 and 41·02 per 1,000 respectively, both being somewhat higher than the corresponding rates in the preceding year. Febrile affections, including 7 cases of enteric fever, bronchial affections, diarrhœa, and debility were the principal diseases. The deaths were caused by diarrhœa in four cases, and by tubercular meningitis, croup, tabes mesenterica, and debility, one case respectively.

Sanitary Conditions.—With the exception of the occurrence of enteric fever at the latter part of the year, the health of the troops may be considered as good. "The outbreak appears to have been, without doubt, due to the " presence of cesspits in the immediate vicinity of the camp. The system of " drainage, as far as regards the disposal of urine, water of washing and " ablution rooms is very faulty. A special sanitary committee has reported " on the insanitary conditions, and has forwarded recommendations for a new " and thorough system of drainage."

The sanitary condition of the barracks themselves and the huts is favourably reported on, and their ventilation and cubic space is sufficient. Water supply is from rain water collected in tanks; the quality was good and the quantity sufficient, and bath and lavatories are in good condition and sufficient. Rations appear to have been satisfactory, but a mutton ration once a week is said to be desirable. Canteen large and well ventilated. Clothing has been suitable to the climate.

Improvements in drainage have been carried out, and many drains heretofore underground have been laid open, and catchpits in many instances have been laid open and grated, thus rendering percolation less likely, and removal of any accumulation easier.

The Principal Medical Officer recommends a modification of the hours of work in the summer months, and suggests that the two hours in the afternoon should be dispensed with, as these, from three to five p.m., are about the hottest and least endurable.

VI.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST INDIES.

Sickness and Mortality.

I.—White Troops.

West Indies Command.

The average strength of warrant officers, non-commissioned officers and men was 970. The force in the Command consisted of the 5th and 6th batteries 1st Brigade Cinque Ports Division, Royal Artillery, of which the former was relieved by the 6th battery Welsh Division on the 29th October; the 1st Battalion Royal Scots until 20th October, being relieved by the 1st Battalion North Staffordshire Regiment; detachments Royal Engineers and Departmental Corps, and Garrison Staff.

The number of men admitted into hospital was 727; there were 11 deaths, including that of an invalid after arrival at home, and the average number constantly sick was 38·65. The ratio per 1,000 of admissions was therefore 749·5, of deaths 11·33, and of constantly sick 39·84. Compared with the corresponding rates for the preceding year a considerable decrease is observed in all, amounting to 439·4 per 1,000 in the case of admissions, 3·11 in that of mortality, and 27·33 per 1,000 in that of constant inefficiency through sickness; and compared with the preceding decennial average, the admission rate shows a decline of 195·7 per 1,000, the death rate one of 4·65, and the constantly sick rate one of 5·55 per 1,000. The average sick time to each soldier was 14·58 days, and the average duration of each case of sickness 19·46 days, being shorter than the corresponding periods in the foregoing year by 9·94 and 1·16 days respectively; while the former is less than the average sick time in the preceding 10 years by 2·03 days, and the latter longer than the average duration of each case of sickness in that period by 1·89 days.

From the foregoing figures it will be observed that there was a considerable improvement in health in the year under report, and markedly so as compared with 1883, when the sick rates were greatly above the average, owing chiefly to the prevalence of febrile affections among the newly arrived troops at Barbados and Trinidad.

Statistics relating to the health of the particular corps which served in the garrison are found in Abstract XLII.

The highest ratios of admission are observed in the 1st North Staffordshire Regiment and the battery of the Welsh Division Royal Artillery, 1230·1 and 1180·1 per 1,000 respectively, both of these corps had been but a short time in the Command. The admission rate of the Royal Scots, which was so high in the previous year, fell to 687·3, and the death rate to 5·12 per 1,000. Very low rates of admission are shown by the Royal Engineers and Departments, but in each case the average strength was small, and there were but few cases of sickness.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract No. VII.

General Diseases.—*Febrile group.*—54 admissions under this head gives an admission rate of 55·6, and a rate of constantly sick of 2·40 per 1,000. There was no death. These rates not only compare most favourably with the corresponding rates for the preceding year, 335·7 and 18·72 per 1,000 respectively, when, as mentioned above, there was a very great prevalence of febrile affections, but also with the average similar rates in the preceding five years, when the admission rate was 227·4 per 1,000, and the rate of constantly sick 8·31 per 1,000.

Enteric fever caused 5 admissions, all at Barbados, the cases were severe, but none proved fatal. Three, however, were subsequently invalided home on account of debility. The disease could not be traced to the existence of any

West Indies Command.

insanitary condition. Simple continued fever caused 14 admissions, all but one occurred at Jamaica, while out of 25 cases of febricula, 23 occurred at Barbados. 9 cases of paroxysmal fevers are returned, of which five were ague and four remittent fever, of the latter, two cases occurred at Jamaica and one at Barbados and Honduras respectively.

Constitutional group.—129 admissions are recorded, equal to an admission rate of 133 per 1,000, which is below that in the preceding year by 70·4, but above the average rate by 25·6 per 1,000. 28 admissions for rheumatic affections are returned, only one case, however, was of the acute form, most of the cases were mild ; the rate of prevalence, 28·9 per 1,000, is below the average. The admissions for primary syphilis numbered 73, and for secondary syphilis 20, being equal to 75·3 and 20·6 per 1,000 respectively. These rates, while they show a considerable improvement on those in the preceding year, are still above the average rates for the previous five years, that for primary syphilis being 46·0, and that for secondary disease 14·1 per 1,000. Including gonorrhœa and its sequelæ, the rate of admission for all forms of venereal diseases was 179·4 per 1,000, as compared with 227·5 in 1883, and a quinquennial average rate of 131·5 per 1,000. The rate of constant inefficiency from these affections, 14·07 per 1,000, has declined from 17·45, but is still high, the average rate being 7·91 per 1·000. Six admissions occurred for phthisis pulmonalis, of which two cases were fatal at Barbados.

LOCAL DISEASES.—Nervous affections caused 10 admissions, of which 3 were cases of mental affection. Cardiac affections caused 16 admissions, 14 being for palpitation and two for valvular disease. Two deaths occurred, one from valve disease and the other from fatty degeneration of the heart. 17 admissions are recorded for respiratory diseases, 4 of which were cases of pneumonia; 3 deaths occurred, two being from pneumonia and one from bronchitis. The rate of prevalence of digestive affections, 100·0 per 1,000, shows a decline of 27·6 from the previous year, and one of 24·1 from the average rate. Dyspepsia, diarrhœa, and tonsillitis caused most admissions. Among 9 cases of hepatic affections was one of hepatitis, with fatal result. The admission rate for urinary diseases, 94·8 per 1,000, is lower than in 1883 by 8·7, chiefly on account of a slight decrease in gonorrheal affections, but the rate is still above the average by 11·4 per 1,000. A death took place from Bright's disease in a man invalided home. The remaining orders of this class of diseases call for no special mention.

Debility caused 18 admissions, chiefly the sequelæ of fever; and *poisons* caused 6 admissions resulting from alcohol.

Injuries.—141 cases of local injury are recorded; the rate of prevalence, 145·4 per 1,000, being about the average. The greater number of the cases were contusions, wounds, and sprains, and were of a trivial character; there were, however, 6 cases of fracture and 7 of dislocation. Two deaths occurred, one from fracture of the skull resulting from an accidental fall, and the other from gunshot wound, and was a case of suicide, a gunner, Royal Artillery, shot himself through the head with his carbine while suffering from the effects of drink. An amputation of the great toe on account of necrosis was performed with satisfactory result.

Invaliding.—The number of men invalided home was 27, and finally discharged by invaliding, 13, being in the ratios of 27·83 and 13·39 respectively, which are less than the corresponding ratios in the previous year by 28·73 and 2·25 per 1,000, but compared with the average similar rates for the preceding ten years there is a fractional increase in the former ratio, and in the latter a decrease of 1·45 per 1,000. The causes of invaliding were debility, 6 cases; cardiac disease, 6; mental affection, 4; phthisis pulmonalis, 3; urinary diseases, 2; and syphilis, epilepsy, bronchitis, splenitis, necrosis, and injury, one case respectively. The disabilities causing final discharge were mental affections 3 cases, debility, heart disease, and phthisis pulmonalis, two cases each; and one of remittent fever, epilepsy, bronchitis, and fracture respectively.

Officers.—The average strength was 114, the number of attacks of illness 51, deaths 2, and invalided 5. The ratios per 1,000 were, therefore, 447·3, 17·5, and 43·9 respectively. The rates of mortality and invaliding are higher than in the preceding year, but that of sickness is less by about a fourth. The chief illnesses were fevers and disorders of the digestive system. The deaths were due to apoplexy and gastric ulcer respectively. The invaliding was caused by

West Indies Command.

ague, phthisis pulmonalis, heart disease, cystitis, and concussion of the brain.

Women.—In an average strength of 81 there were 22 attacks of illness but no death. The sick rate was, therefore, 271·6 per 1,000, considerably less than in the preceding year. Digestive and uterine affections were the principal ailments.

Children.—The average strength was 140, and there were only 15 attacks of illness; the ratio per 1,000 of sickness 107·1 is much lower than in 1883. 3 cases of measles occurred, the remainder were bronchial and digestive affections. There were two deaths, one from bronchitis and one from teething.

Sanitary Conditions.—The Principal Medical Officer, Deputy Surgeon-General W. H. Muschamp, reports that the white troops were quartered in Barbados, Jamaica, and Trinidad, and that their health has been good.

With regard to the barracks at the several stations "the accommodation "was good, the ventilation satisfactory, and there was no overcrowding. In "the hospital building the accommodation was also good, with ample cubic "space and superficial area.

"The water supply is generally good and sufficient, but a scarcity is sometimes experienced at Newcastle, Jamaica, in very dry seasons, when it "becomes necessary to carry the water by fatigue parties.

"Drainage and conservancy generally in a satisfactory condition.

"Rations. The quality of the supplies has been good; means of cooking "ample, and every facility for varying the diet. At the Up Park Camp, "Jamaica, a new Bergen stove has been supplied, and it is said that it is "superior to the old one."

Among the sanitary improvements carried out during the year are the following:—Provision of bath and ablution room in the upper flat, Iron Barracks, provision of steps and cover to the verandah in the Stone Barracks, and increased latrine accommodation in both these barracks, together with various other minor improvements.

II.—BLACK TROOPS.

The average strength of non-commissioned officers and men was 1,150, exclusive of white sergeants. The black troops serving in the Command were the head-quarters of the 1st West India Regiment at Jamaica, with detachments at Demerara, Nassau, and Honduras; a detachment of the 2nd West India Regiment and the corps of military labourers at Barbados.

The admissions into hospital were 1,065, the deaths 13, and the number constantly sick 69·56; the ratios per 1,000 of strength were consequently 926·1, 11·30, and 60·49 per 1,000. Compared with corresponding rates in the previous year there is a decrease in the rate of admission of 102·4 per 1,000, an increase of 2·10 in the rate of mortality, and a fractional decrease in the constantly sick rate, and in comparison with corresponding average rates for the preceding 10 years, a decrease of admission rate is observed, equal to 184·4 per 1,000, and one of 5·41 per 1,000 in the death rate, while the constantly sick rate shows a slight increase. The average sick time to each soldier was 22·14 days, and the average duration of each case of sickness 23·90 days, the former fractionally shorter than the corresponding period in the foregoing year, but the latter longer by 2·26 days. The rate of sickness in the 1st West India Regiment, 1108·9 per 1,000, was nearly twice as large as that of the detachment 2nd West India Regiment, and all the deaths took place in the first-named corps. The admissions and deaths in the different classes and orders of diseases are shown in Abstract VIII.

GENERAL DISEASES.—*Febrile group.*—The admissions numbered 140, and 4 deaths occurred; the rate of prevalence, therefore, was 121·7 per 1,000, less than in 1883 by 35·6, and than the average rate of the preceding five years by 101·2 per 1,000. The rate of mortality is above the average. Measles caused six cases at Barbados. Simple continued fever caused 38 admissions, all but 5 at Jamaica, and there were five admissions for febricula. Paroxysmal fevers show 68 admissions, equal to 59·1 per 1,000, somewhat less than in the previous year, but considerably below the average rate. There were 37 cases of

West Indies Command.

remittent fever, of which 11 occurred at Jamaica and 26 at Honduras, two cases proved fatal at each place; the remainder of the attacks of paroxysmal fevers were due to ague, 16 at Orange Walk, 6 at Nassau, 5 at Demerara, and 4 at Jamaica. The rest of the admissions for febrile affections, 23, were all due to mumps, which occurred principally in Honduras and to a slight extent in Nassau.

Constitutional affections were at the rate of 218·3 per 1,000 as compared with 229·1 in the previous year, and an average of 240·5 per 1,000. The rates of prevalence of rheumatism and of phthisis pulmonalis have both declined, but two deaths occurred from the latter cause. The rates of admission for primary and secondary syphilis were 157·4 and 11·3 per 1,000 respectively, the former being higher than that in the previous year by 32·3, and also above the average, but the latter is lower than in 1883 by 16·3, and below the average also. Including gonorrhœa and its sequelæ, the total admission rate for venereal diseases was 321·8 per 1,000, and the rate of constant inefficiency from these diseases, 25·57 per 1,000. These rates are in excess of the corresponding average rates and of those in the preceding year.

LOCAL DISEASES.—Nervous diseases show 14 admissions of simple character except three cases of mental affection. Diseases of the circulatory system caused 26 admissions, of which 7 were for valve disease of the heart, among which were two fatal cases; a death also occurred from pericarditis and one from aortic aneurism. The admission rate for respiratory diseases, 39·1 per 1,000, has declined considerably from the previous year, and is also below the average. Among the cases were 15 of bronchitis and pneumonia respectively, and one case of the latter was fatal. Digestive affections, with a rate of 65·2 per 1,000, were also much less prevalent than usual; among the cases were 9 of dysentery, 15 of diarrhœa, and 6 of hepatic disease Among urinary diseases, gonorrhœa and its sequelæ caused an admission rate of 153·1 per 1,000, almost identical with the rate in 1883, both being rather above the average. The remaining orders of diseases call for no special mention.

Injuries.—A case of accidental drowning took place at Orange Walk, Honduras. 130 admissions for local injuries, chiefly sprains, contusions, wounds, &c., caused an admission rate of 113·1 per 1,000, which is above the average ratio. An amputation of the thumb was performed on account of necrosis, with satisfactory result.

Invaliding.—31 men were invalided and discharged the service; the ratio per 1,000 being 26·96 per 1,000, rather more than half that in 1883, and more than the decennial average by 5·33 per 1,000. The principal causes of invaliding were phthisis pulmonalis, 4 cases; rheumatism and secondary syphilis, of each, three cases; diseases of the nervous system, including three of mental affection, five cases; heart disease, three cases; and diseases of the organs of locomotion, four cases, &c.

Sanitary Conditions.—The reports from the medical officers at the different stations show that the general health of the black troops has been fairly good, and the sanitary state of the barracks and hospitals, generally speaking, satisfactory. Water supply generally good and sufficient. Rations mostly reported to be of good quality. Greater variety in means of cooking appears to be desirable.

VII.—ON THE HEALTH OF THE TROOPS SERVING IN WESTERN AFRICA.

Sickness and Mortality.

I.—White Troops.

West Africa.

The white troops consisted of the European non-commissioned officers of the West India Regiments and the officers serving in the Command. The average strength of the former was 12, and the admissions into hospital numbered 33. No death occurred. The sick rate equalled 2750·0 per 1,000. 27 of the admissions were due to remittent fever. Two non-commissioned officers were invalided for remittent fever and one for debility.

The average strength of officers was 22, and the number of attacks of illness 39, equal to a rate of 1772·7 per 1,000, which is lower than in the preceding year. There was no death, but three officers were invalided, one on account of hepatitis, and two on account of remittent fever, of which disease 22 attacks are recorded.

II.—Black Troops.

The head-quarters 2nd West India Regiment were stationed during the year at Sierra Leone, and a detachment of the same regiment at Cape Coast Castle. No change occurred.

The average strength of non-commissioned officers and men was 539, the admissions into hospital numbered 688, the deaths 9, and the average constantly sick 36·39. The admission rate per 1,000 was therefore 1276·4, the death rate 16·69, and the constantly sick rate 67·51. Compared with the corresponding rates for the preceding year there is a decrease in admission rate of 483·7 per 1,000, and one of 9·73 in that of mortality, but a slight increase is observed in the rate constantly ineffective through sickness. In comparison with the average rates for the previous 10 years there is also a decrease observed in the rates of prevalence and mortality, but a slight increase in the rate of constantly sick. The average sick time to each soldier was 24·71 days, and the average duration of each case of sickness 19·36 days, being longer than the corresponding period in the previous year by 1·87 and 6·37 days respectively. The admissions and deaths in the different classes and orders of diseases are shown in Abstract IX.

General Diseases.—168 admissions and three deaths are returned under the *febrile group*, being in the ratios of 311·7 and 5·57 per 1,000 respectively; the rate of prevalence compares very favourably with that of 1883, 813·0 per 1,000, and with that of the average of the five preceding years, 536·0 per 1,000. The rate of mortality, however, is higher by 3·54 per 1,000 in the former comparison, and by 2·11 per 1,000 in the latter. One case of enteric fever and one case of yellow fever were admitted at Sierra Leone; both were fatal. It is stated that yellow fever and a severe type of remittent fever prevailed among the inhabitants of the town during the year, but did not develop to any extent in the garrison. Paroxysmal fevers caused 163 admissions, 85 being at Sierra Leone and 78 at Cape Coast Castle; the rate of prevalence, 302·3 per 1,000, is less than half that in the preceding year, and considerably below the quinquennial average rate. All but four of the cases treated were remittent fever, and, as a rule, they are described as being mild or of ordinary type; one case, however, at Cape Coast Castle was very severe, and proved rapidly fatal.

West Africa.

The *constitutional group* of diseases shows 102 admissions, equal to a ratio of 189·3 per 1,000, as compared with 241·9 in the previous year; and an average rate of 251·5 per 1,000. Rheumatism caused 40 admissions, all of the chronic or muscular varieties. Primary syphilis caused 36 admissions and secondary syphilis 23, the ratios being respectively 66·8 and 42·7 per 1,000. Compared with the ratio in the previous year the former shows a decrease of 49·0, and is also below the average rate by 46·2 per 1,000. The ratio of secondary syphilis is higher in both these comparisons by 32·6 and 4·7 per 1,000 respectively. Including all forms of venereal affection the rate of prevalence amounts to 293·1 per 1,000, and the rate of constant inefficiency 18·00 per 1,000, the former being rather lower and the latter somewhat higher than the corresponding ratios in 1883, and than the average similar ratios for five years. Three admissions took place for phthisis pulmonalis, of which two were fatal.

LOCAL DISEASES.—Nervous affections caused 9 admissions, including two of sunstroke. Diseases of the circulatory system were the cause of 13 admissions, including 4 cases of valve disease of the heart, and a fatal case of aortic aneurism. Among 37 cases of respiratory affection there were 22 admissions for bronchitis and 5 for pleurisy and pneumonia respectively, two cases of the latter disease ending fatally. The rate of admission for digestive disorders, 133·6 per 1,000, differs but little from the average rate or that of the foregoing year. Among the cases were 10 of hepatic affections, 14 of dysentery, and 18 of diarrhœa. Under urinary affections gonorrhœa and its sequelæ show a ratio of 183·6 per 1,000, being rather below the corresponding rate in 1883, and also above the average. One fatal case of Bright's disease is returned. Cutaneous affections were a little above the average in point of numbers, but were of no great moment; it is remarked, however, that for a short time ringworm was rather prevalent at Cape Coast Castle, but the disease was probably imported into barracks from contagion in the town. 55 admissions for local injuries of an ordinary character are recorded, and do not require special mention.

Invaliding.—No men were discharged the service by invaliding during the year.

Women.—The average strength was 41 and the attacks of illness numbered 38, being in the ratio of 926·8 per 1,000. 15 of the cases were due to remittent fever. No death occurred.

Children.—The average strength is returned as 22, and the attacks of illness as 19. The rate of prevalence was therefore 863·6 per 1,000. Eleven of the cases were due to remittent fever. There were three deaths, one from tabes mesenterica, and two from convulsions.

Sanitary Conditions.—The Senior Medical Officer reports that the huts on Leicester Peak, which had been abandoned on account of the scarcity of water and the difficulty of communication with the barracks, were again made serviceable with a view to the place being used as a sanitarium. The buildings, for which a site was chosen on the plateau at the top of Kortright Hill, Sierra Leone, were in course of construction.

The state of the drainage, both at Sierra Leone and at Cape Coast Castle, is said to have been good. The water supply and means of ablution were very satisfactory. "Epidemic fever with the characteristics of yellow fever "prevailed to a certain extent at Sierra Leone during the latter part of June "and the early part of July, causing several deaths in the town both among "Europeans and natives, but precautions were taken to prevent its spread "among the troops with the most favourable results."

At Cape Coast Castle stoves have been erected in each of the officers' quarters, which prove of great benefit, especially in the rainy season. The sanitary state of the town of Cape Coast has been reported as bad, the main drain to the east of the castle is in a dilapidated condition, but slight improvement in some of the drains in the towns has been effected.

VIII.—ON THE HEALTH OF THE TROOPS SERVING AT THE CAPE OF GOOD HOPE AND AT ST. HELENA.

Sickness and Mortality.

Cape of Good Hope and St. Helena.

The Acting Principal Medical Officer, Surgeon-Major J. Scanlan, reports that the strength of the troops in the Command remained about the same as in the preceding year up to the beginning of August, when the 2nd South Lancashire Regiment arrived from England. In November the 6th Dragoons and C Battery 1st Brigade Royal Artillery were transferred from Natal to Cape Town, and the 13th Hussars arrived in Natal from India. In December the 1st Battery 1st Brigade South Irish Division Royal Artillery, and the 1st Battalion Royal Scots landed at Cape Town. These reinforcements were sent for the Bechuanaland expedition, and this field force, which was formed at the close of the year, consisted of the following regular troops: 6th Dragoons, two batteries Royal Artillery, detachment Royal Engineers, 1st Royal Scots, and detachments Departmental Corps. The monthly average strength varied from 2,522 in June to 4,715 in December, the average annual strength being 3,157. In July the strength of the troops quartered in St. Helena was reduced by the withdrawal of the company of the infantry regiment whose head-quarters are stationed at the Cape, and the reduction has been made permanent. The average annual strength for St. Helena is given as 173.

On account of the disturbed state of affairs in Zululand a battery of Artillery and a company of Engineers were despatched from Cape Town to Natal in May, and they were followed by the 2nd Northamptonshire Regiment in June, but with the exception of the Royal Engineers they returned in November.

The troops sent to Etchowe in Zululand in 1883 continued in that position, and in July a new post near Rorke's Drift was occupied. Two other positions, Fort Yolland and Fort Chater, were formed during the year, but were since abandoned.

The number of admissions to hospital in the whole Command was 2,145, the deaths 25, including that of an invalid who died after arrival at home, and the average constantly sick was 139·24. The admission rate was therefore 679·4 per 1,000, the death rate 7·91, and the rate of constantly sick 44·10 per 1,000. Compared with the corresponding rates in the preceding year the ratio of prevalence has increased by 28·2, and that of mortality by 3·35 per 1,000, but the ratio of constantly sick has decreased by 4·20 per 1,000. In comparison with the average of similar ratios for the preceding 10 years, however, a considerable decrease in admission rate has occurred as well as in the rate of mortality; the constantly sick rate is also lower.

The average sick time to each soldier was 16·14 days, and the average duration of each case of sickness 23·76 days, being less than the corresponding periods in the previous year by 1·49 and 3·31 days respectively; but compared with the average corresponding periods in the preceding 10 years there is a decrease in the former of 2·17 days, and an increase in the latter of 1·84 days.

In the island of St. Helena alone there were 75 admissions and one death, out of an average strength of 173. The average daily sick was 4·54. The rate of admission was 433·5 per 1,000.

The general health of the troops in the Command is reported to have been, on the whole, very good, but the number of cases of enteric fever was greater than in the previous year, chiefly owing to a severe outbreak of that disease at Rorke's Drift. Venereal disease increased in extent in Cape Town.

The more important of the health statistics of the different corps are given in Abstract XLII. Excluding corps which were only a very short time in the Command, the highest admission rate is observed to have been in the 2nd

Cape of Good Hope and St. Helena.

Northamptonshire Regiment, 1065· per 1,000; and among the lowest rates are the 6th Dragoons with 384·98 per 1,000. The 13th Hussars show a large annual admission rate, but they were only a few weeks in the Command, and it is said that, having arrived from India, they suffered a good deal from ague. The rates of mortality vary greatly in the different corps, but of those who served in the Command the whole year the highest rate is found in the Staff and Departments, in which, however, there were only two deaths, but the rate is high owing to the comparatively small average strength. The admissions and deaths, &c. in the different classes and orders of diseases are shown in Abstract No. X.

GENERAL DISEASES.—*Febrile group.*—The total number of admissions was 248, and of deaths 9, being in the ratios of 78·6 and 2·85 per 1,000 respectively. As compared with the rates for the previous year an increase of 24·2 per 1,000 is observed in admission rate, and one of 1·80 per 1,000 in that of mortality; but in comparison with the average similar rates for the preceding five years the admission and death rates for the year under report are still very low.

Fifty-three admissions for enteric fever, with eight deaths, are recorded. One of the cases occurred at St. Helena and was fatal. The rate of prevalence, 16·8 per 1,000, and that of mortality compare unfavourably with those in the preceding year, viz., 10·9 and 1·05 per 1,000, but they are much lower than the average rates for the preceding quinquennial period, which are 43·9 and 9·59 per 1,000 respectively. Two outbreaks of enteric fever occurred during the year, one at Pinetown and the other at Rorke's Drift. That at the former place occurred in May; there were 8 cases, and they all recovered. The Principal Medical Officer states that "they could not be distinctly traced to any one cause, but, as they all appeared within a fortnight, the cause must have been a common one, and was most probably drinking impure water while on fatigue duty. In November there were three admissions for enteric fever at Pinetown among men of the 6th Dragoons who had just marched in from Rorke's Drift.

"The Rorke's Drift camp was formed on the 8th July, and continued until the end of October. Towards the end of October three cases of enteric fever occurred, and during the following month there were 30 cases, also one in December, making a total of 34, out of which there were 7 deaths. The epidemic was chiefly confined to the young soldiers of the 2nd South Lancashire Regiment which arrived in Natal from England in August." It is stated that "a detachment of young soldiers, recently from England, at the commencement of October, proceeded wood cutting in the Bashee valley, fifteen men were attacked, and all were of only four or five months' service in the Colony. It had been an extremely wet season and the floods, charged with the drainage of a large extent of country (not so thoroughly cleansed, perhaps, for the past five years), had caused an exceptional pollution of the water from which these young soldiers drank; while the hard fatigue duties, together with the fact of their being unseasoned to the climate, predisposed them to attack." During the year there were a few cases of enteric fever at other stations, among them 5 at Maritzburg (3 of which were probably contracted at Rorke's Drift), and one at Etchowe, contracted on the march from Pinetown, but the disease did not assume an epidemic form. The admissions in the whole Command for other continued fever amounted to 118 or 37·4 per 1,000, considerably below the average rate but somewhat higher than in the preceding year. Under the head of paroxysmal fevers 69 admissions are recorded, or 21·9 per 1,000 as compared with 4·9 in 1883; the rate of prevalence is less than half the quinquennial average rate. The majority of the cases occurred in the 13th Hussars lately transferred from India, and the Principal Medical Officers remarks that "no case of malarial disease appears to have originated in the Command." Other febrile diseases show 8 admissions, 7 for erysipelas, and one fatal case of pyæmia at Etchowe.

Constitutional group.—An admission rate of 158·4 per 1,000 is returned, against 141·7 in the preceding year, and the average rate of 111·4 per 1,000.

Rheumatism caused 130 admissions, and was somewhat increased in prevalence as compared with 1883, though below the average rate. 33 of the cases were of the acute form, but there were no deaths. The admission rate

Cape of Good Hope and St. Helena.

for primary syphilis is 89 per 1,000, and that for secondary syphilis 24·4 per 1,000; the former being slightly higher than the rate in the preceding year, but more than double the average rate of the previous five years, and the latter is also higher in both these comparisons by 8·6 and 5·5 per 1,000 respectively. Including gonorrhœa and its sequelæ the admission rate for all forms of venereal disease was 191·9 per 1,000 as compared with 178·2 in the preceding year, and the ratio of constant inefficiency through these affections was 15·97 per 1,000, as compared with 13·45; while both the rate of prevalence and the rate of constantly sick are more than double the corresponding average rates for the preceding quinquennial period. It is stated that these affections are also very prevalent among the civil population. Seven cases of tubercular disease were admitted to hospital, five of them were cases of phthisis, all were invalided, and one man died after arrival at home. There were 5 admissions for other constitutional affections, 4 being for anæmia and one for cancer of the mesenteric glands, which had a fatal termination.

LOCAL DISEASES.—The ratio of admission for nervous affections, 8·9 per 1,000, has decreased as compared with that of 1883, and is below the average. Among the admissions there were three of mental disease. Two fatal cases occurred, one of abscess of the brain and one of epilepsy. The rate of prevalence of diseases of the circulatory system is only about two thirds of the rate for the previous year, and also of the average rate. Among the admissions were 29 of palpitation and 6 of valve disease of heart, one case of the latter was fatal, the man had had three attacks of acute rheumatism. The admission rate for respiratory affections is also considerably below the average. Among the admissions were 21 of bronchitis and 7 of pneumonia, one case of each being fatal; a death occurred from acute pneumonic phthisis, the man was landed at Cape Town in a dying condition, it appears that a few days before leaving England he was nearly drowned, being revived with difficulty, and the pulmonary affection shortly afterwards developed. Disorders of the digestive system caused an admission rate of 102·9 per 1,000, being higher than the similar rate in the previous year by 17·3, but a good deal below the average. There were 96 cases of tonsillitis, chiefly found among young soldiers recently landed from England; 26 cases of hepatitis and 16 of dysentery are returned, they were as a rule mild; there was, however, one death from hepatic abscess. The rate of prevalence for gonorrhœa and its sequelæ was 78·5 per 1,000, as compared with 77·9 in 1883, and with an average rate of 33·6 per 1,000 during the preceding five years. There were, among other urinary diseases, two cases of Bright's disease, both of which proved fatal. The remaining orders of local diseases call for no special mention except that admission for cutaneous diseases declined considerably in frequency.

Under the head of *debility* 83 admissions are recorded; a large number being the result of febrile affections, chiefly enteric fever. *Poisons* caused seven admissions, six resulting from abuse of alcohol, and one from the sting of a scorpion.

Injuries.—There were two cases of accidental drowing, one at the Mooi River and the other at Rorke's Drift. In both cases the men were carried down the river while in flood. The admissions for local injuries numbered 260 or 82·3 per 1,000, rather above the average, and among them were 16 fractures, and a large number of contusions, wounds, and sprains. Two fatal cases occurred, one of accidental gunshot wound during a reconnaissance in Zululand owing to a rifle, in the hands of a comrade, going off unexpectedly; the other case was *suicidal*, a sergeant of the Welsh regiment shot himself through the head. A verdict of suicide, while in a state of temporary insanity, was returned, and no motive could be assigned for the act.

Invaliding.—75 men were invalided home to England, and 45 were finally discharged the service, being in the ratios of 23·76 and 14·25 per 1,000 respectively; the former being lower than the corresponding rate in the previous year by 31·33 and the latter by 6·79 per 1,000; and compared with the average similar rates for the preceding 10 years by 34·26 and 7·05 respectively.

Among the invalids sent home were three from St. Helena. The causes of invaliding in order of frequency were debility (principally after attacks of enteric fever) 16 cases, cardiac affections 14, rheumatism 8, tubercular

Cape of Good Hope and St. Helena.

diseases, secondary syphilis, and diseases of the organs of locomotion, 6 each, hepatic diseases 4, mental diseases, 3 cases, &c. The principal disabilities necessitating final discharge were phthisis pulmonalis, 4 cases; aural affections 6, diseases of the circulatory and digestive systems 7 and 4 cases respectively, diseases of the organs of locomotion 4 cases, debility 6, and injuries 5 cases.

Officers.—The average strength was 151, there were 61 cases of sickness, 3 deaths, and 3 officers were invalided home; the rate of prevalence of sickness was, therefore, 401·3 per 1,000, that of mortality 19·74, and that of invaliding 19·74 per 1,000. As compared with the previous year there was an increase of 29·7 in the sick rate and a fractional decrease in the death rate. The causes of sickness were principally febrile and rheumatic affections and disorders of the digestive system. The deaths were caused by enteritis, pneumonia, and cirrhosis of the liver respectively. One officer was invalided for debility after enteric fever, one for paralysis, and another for glaucoma.

Women.—The average strength was 187; the attacks of sickness 99, and there was one death; the sick rate, 529·4 per 1,000, and the death rate, 5·35 per 1,000, have declined as compared with similar rates in the preceding year. Febrile, digestive, and uterine affections were the principal ailments; the death was due to peritonitis.

Children.—In an average strength of 308 there were 77 cases of sickness and 8 deaths, or 250·0 and 26·0 per 1,000 respectively; both being considerably less than the corresponding rates in 1883. Among the cases were four of enteric fever, one being fatal; two of meningitis, and three of convulsions, all fatal, and two of enteritis, with one death.

Sanitary Conditions.—The Principal Medical Officer reports that "the " sanitary condition of Cape Colony is generally good, but the vicinity of " Cape Town continues to call for remonstrance, on the part of the military " authorities, on account of faulty drains and neglected sluits. One notable " improvement was made during the year, which was beneficial to the troops, " removal of the shambles. New latrines and bath accommodation have been " constructed in the main barracks, and a new washhouse and latrine built in " the castle.

"In Natal several valuable improvements have been effected during the " year, calculated to improve the sanitary condition of the troops. At Fort " Napier a new cookhouse and lavatory were built for the hut barracks of " the Mounted Infantry; three new blocks of married quarters with necessary out-buildings and a new hospital of three wards for 18 patients, " intended eventually to supersede the hospital huts. A new hospital cookhouse, scullery, and larder supplied with water, with a pack store and dry " earth store in the same building, are also being constructed. A new guard " room and sergeants' mess have been built for the Royal Artillery Barracks, " and a guard room of similar construction and an ablution room have been completed in the barracks occupied by the Argyll and Sutherland Highlanders. " Verandahs have been made round the quarters of these corps; and to " banish the fleas which were harboured in the old earthern floors concrete " has been laid down. Two warrant officers' quarters have been built, and two " cookhouses are now in progress. Improvement has also been made in the " water supply.

"At Pinetown many minor improvements have been carried out during " the year, a new cookhouse has been built for the hospital, and verandahs " are about to be constructed on the sunny side of the barrack rooms; the " floors have been hardened, and iron tanks supplied for the storage of " water.

"The sanitary condition of barracks and camps is generally good.

"*St. Helena.*—But little is left to be desired in the sanitary condition of " St. Helena, which last year maintained its usual character, and the health of " the troops was excellent."

IX.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF MAURITIUS.

Sickness and Mortality.

Mauritius.

The average strength of warrant officers, non-commissioned officers and men was 363, and the force was composed of a battery of Royal Artillery, a few men of the Royal Engineers, a detachment 1st Battalion the Welsh Regiment, and Garrison Staff and Departments. No change took place during the year, except that a draft of invalids were sent to Natal and were relieved by healthy men. The admissions into hospital numbered 833, the deaths 8, and the constantly sick 34·75; the ratio of admission being 2294·8, that of mortality 22·03, and that of constantly sick 95·73 per 1,000. Compared with corresponding rates in the previous year an increase of 266·4 per 1,000 is observed in the rate of prevalence of sickness, and one of 6·57 in the rate of mortality, but in the rate of constant inefficiency through sickness a slight decrease has occurred. In comparison with the average similar rates for the preceding 10 years an increase is noticed in all, amounting to 218·1 per 1,000 in admission rate, 5·32 in death rate, and 23·06 in daily sick rate. The average sick time to each soldier was 35·03 days, and the average duration of each case of sickness 15·26 days, as compared with 35·55 days and 17·53 days respectively in 1883, and with average decennial periods of 26·52 and 12·77 days.

The most important of the health statistics of the corps which served in the Command are given in Abstract XLII. The admission rates of the infantry and artillery, 2653·5 and 1729·4 per 1,000 respectively are both high, as also the rates of constantly non-effective, which in the infantry reaches 114·33 per 1,000. The health of the artillery appears to have been generally much better than that of the infantry, partly, according to the Senior Medical Officer, Brigade Surgeon J. Symons, on account of the superior stamina of the men of the artillery and partly on account of the more favourable position of their barracks.

The admissions and deaths in the various classes and orders of diseases are shown in Abstract XI.

GENERAL DISEASES.—*Febrile group.*—The total number of admissions was 501, nearly all due to paroxysmal fevers, and there were 6 deaths. The rate of prevalence, 1380·1 per 1,000, is a good deal higher than that in the preceding year, and than the average rate for the previous five years. The mortality rate is also above that of 1883 as well as above the average.

Continued fevers are represented by six cases of enteric fever (with two deaths) and two of simple fever. Two of the cases of enteric fever are returned from Port Louis, and four from Curepipe, but out of the latter three originated in Port Louis. The Senior Medical Officer states that in no instance could the cause of the disease be traced, though at Port Louis the sources of danger are numerous. "The cases of enteric fever were well marked, " but in some instances the temperature chart showed a variation from the " ordinary record of typhoid fever, the thermometer showing a rise and fall in- " dicating the supervention of a malarial attack."

Paroxysmal fevers caused 493 admissions and 4 deaths, the rate of prevalence being 1358·1 per 1,000, which compares unfavourably with 894·3 in the preceding year, and is also above the average rate of the previous five years; the mortality rate is also above the average. The ratio of constant inefficiency through malarial fevers amounted to 42·48 per 1,000, which is, however, a higher rate than usual, the quinquennial average rate of inefficiency being 33·85 per 1,000. Of the cases 448 are returned as ague and 45 as remittent fever, the deaths were all due to the latter disease. The Senior Medical Officer remarks that "as usual of late years in this colony malarial fever of varied " type, generally intermittent, is the chief cause of disability. Within a few

Mauritius.

" months after their arrival in the Command it was found that a number of " men of the Welsh Regiment were shattered in health and unfit for further " service in Mauritius; 55 men were therefore transferred to the head-quarters " of the regiment in Natal, being relieved by a similar number from that place, " these, on arrival in the Command, were, in accordance with my recommendation, sent direct to Curepipe, and there has been seemingly an almost complete immunity from ague and the ordinary remittent fever among them. " A large proportion of the cases of malarial fever were of the gastro hepatic " form, commencing with diarrhœa, followed by discoloration of the conjunctivæ, and a yellow tinge of the skin.

" In two of the fatal cases returned by the medical officer of the station " hospital, Port Louis, as remittent, he reports ulceration of the intestines; in " one instance the large intestine only was affected, and in the other ulceration " was limited to the small intestines, not specially affecting Peyer's patches; " it seems probable that these cases were of the malarial typhoid variety."

The admissions for diseases of the *constitutional group* numbered 77, being in the ratio of 212·1 per 1,000, which is considerably less than that of the previous year, and also less than the five years average rate. Rheumatism caused 19 admissions, six cases being of the acute form. The cases of primary syphilis numbered 55, and of secondary syphilis 3, being in the ratios of 151·5 and 8·3 per 1,000 respectively. The rate of prevalence of the primary affection is above the average rate by 5·7, but is below the rate in the preceding year by 13·5 per 1,000. The rate for secondary disease, 8·3 per 1,000, is greatly below the average rate and that in 1883, which was very high. It is stated that venereal disease has been mild in character "and confined to men at Port " Louis, no cases having originated in Curepipe." Including all forms of venereal disease the rate of prevalence was 253·5 per 1,000, and the rate of constant inefficiency 21·32 per 1,000, both being somewhat below the corresponding average rates, and both considerably under the rates in the previous year.

LOCAL DISEASES.—The admissions under the different orders, with the exception of diseases of the digestive and urinary systems, have been very few. Among 6 admissions for nervous diseases was one for mania, which was invalided. Circulatory affections caused 8 admissions, including two for valve disease of the heart, and 10 cases of respiratory disease were all bronchial affections. Diseases of the digestive system numbered 97, or 267·2 per 1,000, somewhat above the average rate, but a decline of 24·1 on the rate in 1883. The cases included 8 of hepatic disease, 26 of dysentery, and 39 of diarrhœa. Curepipe furnished the largest proportion of bowel affections. One death occurred from dysentery. Among urinary diseases, gonorrhea and sequelæ caused 34 admissions, or 93·7 per 1,000, being a decline as compared with the previous year, and also below the average. Three admissions are recorded for other urinary affections, one of which was a fatal case of Bright's disease. Eighteen cases of debility are returned, one case of delirium tremens, and 42 admissions for local injuries of an ordinary character calling for no special mention.

Invaliding.—17 men were invalided to England, being in the ratio of 46·83 per 1,000, above the decennial average rate by 4·54, and also higher than the rate in the previous year. The causes of invaliding were paroxysmal fevers, rheumatism, and dysentery, of each two cases, heart disease three cases, debility four, and apoplexy, epilepsy, mania, and stricture of the urethra one respectively. Three men were finally discharged the service, on account of chronic rheumatism, phthisis pulmonalis, and mania respectively.

Officers.—In an average strength of 19 there were 10 attacks of illness, of which six were due to febrile affections; the sick rate, 526·3 per 1,000, is less than half that in 1883. One officer was invalided on account of asthma.

Women and Children.—39 attacks of illness occurred in an average strength of 16 women, of the cases 15 were fevers and 5 uterine affections. One death occurred from phthisis pulmonalis. The average strength of children was 40, and the cases of sickness 39, among them were 12 febrile attacks, 6 bronchitis, and 8 bowel affections. A death was caused by tubercular meningitis.

Sanitary Conditions.—The Senior Medical Officer states that "the evil in" fluences which have of late years so seriously affected the health of the troops " stationed in the Line barracks at Port Louis are unabated, and the only

Mauritius.

" prospect of substantial amelioration is in the transfer of the infantry to " Curepipe, this measure is in course of execution by the gradual increase of " barrack accommodation at that station.

"Very considerable improvements have been effected in Curepipe in the " course of the year. A large well appointed barrack hut, suitably divided, " and accommodating 50 non-commissioned officers and men, has been con- " structed, also a new guard-room and cells. A new station hospital with a " detached ward for the treatment of infectious disease has been completed " and occupied, the sick being now sent daily from Port Louis by rail and " ambulance. The old hospital at that station has been vacated, but pro- " vision has been made for the treatment of trivial cases, or those of a very " urgent nature, in a small hospital of 8 beds formed by the adaptation of " rooms formerly used as field officers' quarters in the Line barracks."

Among further sanitary improvements the Senior Medical Officer has recommended the construction of a second deep well to meet the growing requirements of Curepipe, also that systematic surface drainage should be carried out, and that the ungle which encumbers the vicinity of the barracks should be cleared.

X.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF CEYLON.

Sickness and Mortality.

I.—White Troops.

Ceylon.

The force serving in Ceylon consisted of the 5th and 6th Batteries, Eastern Division, Royal Artillery; 1st Battalion Royal Dublin Fusiliers; detachments Royal Engineers, Departmental Corps, and Garrison Staff. No change took place in the composition of the garrison during the year, except the arrival of drafts and the departure of time-expired men, and invalids, &c.

The average strength of warrant officers, non-commissioned officers and men was 985. The admissions into hospital numbered 1,180, the deaths 11, and the average daily sick 66·48. The ratios per 1,000 of strength were, therefore, 1198·0, 11·17, and 67·49 per 1,000 respectively. Compared with the corresponding rates for the preceding year a decrease of 41·4 per 1,000 is observed in the rate of prevalence, and one of 1·21 in that of mortality, but an increase of 13·76 per 1,000 is noticed in the constantly sick rate. In comparison with average similar rates for the previous decennial period the admission rate for the year under report is increased by 148·7 and the rate of constant inefficiency by 13·09 per 1,000; the death rate, however, is decreased by 2·83 per 1,000. The average sick time to each soldier was 24·70 days, and the average duration of each case of sickness 20·62 days, being longer than the corresponding periods in 1883 by 4·36 and 4·21 days respectively, and also longer than those of the decennial average by 4·85 days and 1·70 days.

The more important statistics of the different corps which served in the garrison are shown in Abstract XLII. The rate of admission was highest in the artillery, 1256·4 per 1,000, but considerably less than in the previous year. The rate in the infantry regiment was 1208·4 per 1,000. The mortality rates were 20·51 and 9·17 per 1,000 respectively. The ratios of constantly sick are higher than in the previous year.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XII.

General Diseases.—The admissions in the *febrile group* numbered 90, or 91·4 per 1,000, which is a decline of 74·8 from the rate in 1883 and of 29·9 from the average of the preceding five years. Three deaths occurred, equal to 3·05 per 1,000. Eruptive fevers are unrepresented in the return, but continued fevers show 58 admissions, of which two were for enteric fever, both were fatal and occurred at Colombo. The Senior Medical Officer, Brigade Surgeon J. Landale, M.D., states that "the origin was not traced in either "case. Owing to defective water supply, &c. this disease is of frequent occur-"rence among the civil population of Colombo, both white and coloured." The admission rate for other continued fevers, 56·9 per 1,000, is considerably less than the average rate, as well as that of the preceding year. It is said that the cases were due to ordinary climatic causes, and call for no remark. 31 admissions are returned for paroxysmal fevers, the ratio of prevalence, 31·5 per 1,000, though somewhat above the quinquennial average rate, is less than half that in 1883. Seventeen of the cases were ague, and all occurred among men who had served, or were serving, at out stations, particularly at Trincomalee; they were, however, of a mild type. Thirteen out of the 14 cases of remittent fever occurred at Colombo, in March and April, the hottest and dryest months in the year, and they are attributed partly to the fresh water lake and canal near barracks having become very low, and also to the wells in barracks being in the same condition at this time after a scanty rainfall.

Ceylon.

Constitutional group.—The admission rate, 264·0 per 1,000, is more than twice as great as that in the preceding year, and is largely in excess of the average rate for the previous quinquennial period, which was 204·8 per 1,000. The increase is entirely due to the prevalence of syphilis. The admission rate for primary syphilis was 198·0, and for the secondary form 30·5 per 1,000, as compared with 72·2 and 15·5 per 1,000 respectively in the preceding year, and with quinquennial average rates of 134·4 and 28·9 per 1,000. Including all forms of venereal disease the admission rate was 374·7, being higher than in 1883 by 169·4 and than the average rate by 99·8 per 1,000. The rate of constant inefficiency from these affections was 25·78 per 1,000, as compared with an average rate of 16·79 and one in 1883 of 12·25 per 1,000. The Senior Medical Officer is of opinion that this increase is chiefly due to the number of unlicensed prostitutes, and the inefficient working of the Contagious Diseases Act. Five admissions are returned for phthisis pulmonalis, 4 of the cases were invalided.

LOCAL DISEASES.—Diseases of the nervous system decreased in frequency, the ratio of admission being 14·2 per 1,000. Among the cases treated were 3 of mental affection. Ophthalmic and aural affections had rates of prevalence of 17·3 and 22·3 per 1,000 respectively. The Senior Medical Officer states that affections of the ear, particularly of the external meatus, are very common in this colony, and appear to be due to chill. There was a considerable decline in the prevalence of heart affections, the only admissions being 9 cases of palpitation. Forty-four cases of inflammation or suppuration of glands are returned, and it is said that "the majority of them were due to constitutional " disorder, there being no appreciable local cause, and, without exception, " prolonged non-efficiency resulted." Respiratory affections caused an admission rate of 44·7 per 1,000, being above the average, but rather below last year's rate. Most of the admissions were for bronchial affections, but one fatal case of pneumonia occurred at Colombo. The rate of prevalence of digestive disorders amounted to 192·9 per 1,000, which is considerably below the average rate, as well as that of 1883. The mortality rate, 5·07, is below the average, but above the previous year. Diarrhœa and dysentery each caused 34 admissions, dyspepsia 42, and hepatitis 29. Two men died from dysentery, two from hepatitis, and one from peritonitis. The majority of the admissions for dyspepsia were in men who were known to lead irregular lives. 144 admissions out of 161 for urinary diseases were caused by gonorrhœa and its sequelæ, the rate of prevalence is higher than in the previous year and above the average. There is no great variation among the rates of prevalence of other orders of this class of diseases, and no case calls for special mention.

Debility caused 24 admissions and poisons 15, of the latter all were due to the abuse of alcohol, two are returned as delirium tremens.

Injuries.—One death is returned from accidental drowning in Galle harbour, and a death from *suicide* occurred at Colombo, a sergeant, Royal Dublin Fusiliers, shot himself through the heart with a pistol, a deficiency in his pay accounts was generally believed to be the motive for the act. There were 140 admissions for local injuries of ordinary character, calling for no special mention.

Invaliding.—The number of men sent home invalided was 32, and of those finally discharged 13, being in the ratios of 32·69 and 13·20 per 1,000 of the strength, the former lower than the corresponding rate of last year by 24·27 and than the average of 10 years by 5·91 per 1,000, and the latter fractionally above the previous year's rate, but a little below the average. The principal causes of invaliding in order of frequency were debility 8 cases, phthisis pulmonalis, ophthalmic affections, and dysentery of each four cases, hepatitis 3, mental disease 2, &c. The chief causes of final discharge were tubercular disease, and respiratory and digestive affections.

Officers.—Out of an average strength of 49 officers there were 28 attacks of illness, 2 deaths occurred, and one officer was invalided. The rate of prevalence of sickness was 571·4 per 1,000, an increase on the rate in the preceding year by 102·0. Febrile affections and digestive disorders were the principal causes of illness. Two deaths occurred, one from accidental drowning while bathing, and the other from meningitis.

Ceylon.

Women.—The average strength was 43, and there were 25 attacks of illness, being in the ratio of 581·4 per 1,000, a decline from the rate in the preceding year. No death occurred. Digestive and uterine disorders were the principal causes of illness.

Children.—In an average strength of 68 children there were 14 admissions, the rate of prevalence being 205·8 per 1,000, which shows a considerable decline. Diarrhœa, bronchial affections, and debility caused most of the sickness. One death is recorded from diarrhœa. The children, as well as the women, were on the whole very healthy.

Sanitary Conditions.—The Senior Medical Officer reports that the general sanitary condition of the forts, considering the age of the buildings, is fairly satisfactory, with one or two exceptions, such as the condition of the floors of the barrack rooms and hospital at Trincomalee, which are in bad repair, but this and any other reported defect has been brought to the notice of the military authorities. The condition of the canal or moat at the back of the barracks at Colombo, referred to in former reports, remains in the same unsatisfactory state, but no ill effects could be traced. The water supply at Colombo is reported to be not quite satisfactory, and falls short in a hot and dry season, but this defect will probably be shortly remedied by the new water works which are being constructed by the municipal authorities. The ventilation and accommodation in barracks was generally satisfactory. The cooking was sufficiently varied, but at Trincomalee some complaint was made as to the monotony of the rations, which consisted invariably of beef. A suggestion was made that mutton and fish (which is very plentiful) should be issued once a week, and the Senior Medical Officer concurred in this.

No new buildings were erected during the year, but necessary repairs and minor alterations were carried out. At Colombo the cookhouse, artillery barracks, was enlarged, as also the reading room in the infantry barracks; at Kandy quarters for a staff sergeant were provided for by the reappropriation of a workshop; and at Trincomalee some improvements in drainage were effected.

II. BLACK TROOPS.

The native troops consist of a company of Gun Lascars, and are distributed between the stations of Colombo, Galle, and Trincomalee. The average strength was 85, the admissions into hospital 32, the admission rate being 376·5 per 1,000. There were two deaths, being in the ratio of 23·53 per 1,000. They are returned as debility and pharyngitis respectively. Febrile affections and diseases of the cutaneous and digestive system were the most frequent ailments. The general health of the troops is reported to have been good.

XI.—ON THE HEALTH OF THE TROOPS SERVING IN CHINA AND THE STRAITS SETTLEMENTS.

Sickness and Mortality.

I.—White Troops.

China and Straits Settlements.

The force serving in the Command during the year was composed of the 1st Battery 1st Brigade Lancashire Division; and 8th and 9th Batteries 1st Brigade Southern Division, Royal Artillery; detachment Royal Engineers; 2nd Battalion East Kent Regiment (Hong Kong); 1st Battalion Royal Inniskilling Fusiliers (Straits Settlements); detachments Departmental Corps and Garrison Staff. No changes took place during the year, except that the first-named battery of Royal Artillery arrived at Hong Kong on the 6th February.

The average strength of warrant officers, non-commissioned officers and men was 1,988; there were 1,948 admissions into hospital and 14 deaths, including that of an invalid after having left the Command; and the average number constantly sick was 93·21. The admission rate was therefore 979·8, the death rate 7·04, and the constantly sick rate 46·89 per 1,000. Comparing these with the corresponding rates for the preceding year a decrease of 385·6 has occurred in that of admission, and one of 15·58 in that of constantly sick, while the death rate is increased by a small fraction. In comparison with average similar rates for the preceding 10 years, a decline is observed in all the rates in the year under report, being 69·6 per 1,000 in the case of admission, 3·78 in that of mortality, and 2·34 in that of constant inefficiency through sickness. The average sick time to each soldier was 17·16 days, and the average duration of each case of sickness 17·51 days, the former being shorter than the corresponding period in the previous year by 5·64 days, and the latter longer by ·81 days; but in comparison with the duration of these periods in the preceding 10 years a fractional difference only is noticed in either case.

The proportions in which the two divisions of the Command contributed to these results are shown in the following table:—

1884. Stations.	Average Strength.	Admissions into Hospital.	Died. In the Command.	Died. Invalids.	Died. Total.	Invalided home.	Average daily Sick.	Ratio per 1,000. Admissions.	Ratio per 1,000. Deaths.	Ratio per 1,000. Invalided.	Ratio per 1,000. Average daily Sick.	Average Sick time to each Soldier.	Average Duration of each case of Sickness.
												Days.	Days.
Hong Kong -	1,062	913	8	1	9	47	47·62	859·7	8·47	44·26	44·84	16·41	19·09
Straits Settlements.	926	1,035	5	—	5	29	45·59	1117·7	5·40	31·32	49·23	18·02	16·12

In the Hong Kong division of the Command a decrease of 171·1 per 1,000 has taken place in the admission rate as compared with that of the previous year; in the death rate a fractional decrease is observed, and a considerable one in the rate constantly sick; the invaliding rate, however, is slightly increased. In the Straits Settlements there was a decrease in admission rate

China and Straits Settlements.

equal to 594·4 per 1,000, and one of 4·31 per 1,000 in the constantly sick rate. A fractional increase is observed in the rate of mortality, and the invaliding rate is increased by 6·44 per 1,000.

The more important of the health statistics of the different corps which served in the Command during the year will be found in Abstract XLII.

The Principal Medical Officer, Deputy Surgeon-General R. Hungerford, remarks that "in the Royal Artillery a slight increase is noticed in the admission rate, whilst the death rate is ·29 lower than in the previous year, notwithstanding the increase of a battery, in which two deaths took place. It is a notable fact that no deaths have occurred in the 8th Battery 1st Brigade Southern Division Royal Artillery for the past two years, although it has served in the Command since 1876. A decided diminution in the admission rate of the 2nd Battalion East Kent Regiment is noticed, whilst the death rate is slightly higher, the former giving a decrease of 271·1 and the latter an increase of ·58 per 1,000, but taking into consideration that three deaths occurred from violence, the rate of mortality from disease has decreased. The average constantly sick rate is reduced by 28·66 per 1,000. The admission, death, and invaliding rates of the 1st Battalion Royal Inniskilling Fusiliers show a satisfactory decrease, being 676·0, ·40, and 4·02 per 1,000 respectively less than the corresponding rates for 1883."

The admissions and deaths, &c. in the various classes and orders of diseases are shown in Abstract XIII.

GENERAL DISEASES.—542 admissions under the *febrile group* of diseases occurred, the admission rate, 272·6 per, 1,000, being less than half that in the preceding year, the decrease amounting to 356·7 per 1,000; the rate of constantly sick, 8·59 per 1,000, is just half that in 1883; and the death rate, 2·01 per 1,000, has declined by ·91. This great diminution in the prevalence of fevers is said to be attributable in great measure to the improvements effected in the drainage of the rifle range and vicinity of Tanglin. Compared with the corresponding average rates for the preceding five years, however, very little difference is observed, the rate of admission being only 15·1 per 1,000 lower, while there is a fractional increase both in the rate of mortality and in that of constantly sick. Only one admission, chicken pox, is recorded under eruptive fevers, and no case of enteric fever occurred. Other continued fevers, principally febricula, caused 267 admissions, equal to a rate of 134·3 per 1,000, which is less than half that in the preceding year, and below the quinquennial average rate by 32·6 per 1,000. The admission rate for paroxysmal fevers was almost identical with that of continued fevers, being 134·8 per 1,000. In this case the rate is higher than that of the average five years by 19·5, though considerably below the rate in 1883, which reached 326·3 per 1,000. Of the total number of cases of paroxysmal fevers 219 were ague, and the remainder remittent fever. Of these 62 cases of ague and 41 of remittent fever occurred at Hong Kong; leaving 8 cases of remittent fever and 157 of ague for the Straits Settlements. Of the latter, 7 cases of remittent fever and 130 of ague occurred at Tanglin. Two deaths are recorded from remittent fever, both at Hong Kong. Other febrile diseases show six admissions and two deaths. Among the cases were three of erysipelas, one fatal, at Tanglin; one of sloughing phagedæna, and one, fatal, of malignant pustule, at Penang. The latter case was specially reported by Surgeon A. P. Hart, M.B., and an account of it appears in the Appendix to the Army Medical Department Report for 1883.

The admission rate for diseases of the *constitutional group* was 79·0 per 1,000, being a decline of 3·9 on the rate in 1883, and one of 24·6 per 1,000 on the average rate. 31 admissions, or 15·6 per 1,000, are returned for rheumatism, five cases being of the acute form. Syphilis caused a rate of admission of 31·2 per 1,000 for the primary form, and one of 23·2 for secondary disease, as compared with 41·5 and 9·9 per 1,000 in the previous year, and with average rates of 57·3 and 11·4 per 1,000 respectively. Including gonorrhœa and sequelæ the rate of prevalence of venereal affections amounted to 145·0 per 1,000, being below that in the preceding year by 12·0, and below the average rate by 30·1 per 1,000. The rate of constant inefficiency on account of these diseases was 10·79 per 1,000, being below the average rate, and that for 1883 by 2·02 and ·92 per 1,000 respectively. Tubercular disease

China and Straits Settlements.

shows 12 admissions, but no death, 10 of the cases are returned as phthisis pulmonalis, of which half occurred at Hong Kong.

LOCAL DISEASES.—Nervous affections give a rate of prevalence of 18·6 per 1,000, rather above the average rate. Out of 37 admissions 3 were for sunstroke, 2 for apoplexy, one case fatal, and there were 4 cases of mental disease. The admissions for diseases of the circulatory system numbered 41, or 20·6 per 1,000, being below the average rate by 2·6 and last year's rate by 4·5 per 1,000. Among the cases were 9 of valve disease of the heart, two being fatal at Hong Kong, and 27 of palpitation. The rate of prevalence of respiratory diseases shows a decline on that for 1883, and is below the average. Among a total of 65 cases were 48 of bronchial affections, 7 of pneumonia, and 4 of pleurisy. Diseases of the digestive system caused an admission rate of 128·8 per 1,000, being below the average rate by 24·6, but differing very little from the rate in the previous year. The principal causes of admission were dyspepsia, 69 cases, hepatic affections 49, and diarrhœa 43 cases. Three deaths occurred, two from enteritis at Penang, and one from congestion of the liver at Hong Kong. Affections of the urinary system were principally due to gonorrhœa and its sequelæ, the rates of prevalence being 77·5 and 13·1 respectively, out of a total rate of 102·7 per 1,000; there was less prevalence of gonorrhœa than in 1883, and the rate for gonorrhœal affections is below the average by 15·8 per 1,000. Other orders of local diseases call for no special allusion, with the exception that the admission rate for cutaneous affections, 72·4 per 1,000, is a good deal above the average rate, 63·8, and that in the preceding year, 61·3 per 1,000; boils and ulcers were particularly more prevalent.

The admission rate for debility, 42·3 per 1,000, though still a little above the average, is much below that in the previous year, the decrease being 31·3 per 1,000. The majority of the cases occurred at Hong Kong. One death is returned, that of an invalid after leaving the Command. 39 admissions are shown under the head of poisons, 37 being due to the abuse of alchohol, of which 11 were returned as delirium tremens. The admissions from this cause are more numerous than in 1883, but the Principal Medical Officer remarks that he is "inclined to think that it may not be entirely due to increasing "intemperate habits among the troops, but to a more accurate nomenclature, "the cause of the disease being given instead of the symptoms." The two remaining admissions were due to poisoned wounds.

Injuries.—One death occurred under the head of general injury, a case of asphyxia by plugging of air passages by a foreign body passing into the trachea of a man, under the influence of alcohol, in the act of vomiting. Local injuries caused 202 admissions, principally contusions, wounds, sprains, &c.; there were also 17 admissions for fractures, of which one, a fracture of thigh, resulted in perfect recovery, and another, a fracture of the base of the skull from a fall down a flight of stone steps, did well, and was invalided home three months afterwards, at which time the man was slowly improving. Two deaths in the East Kent Regiment occurred from self-inflicted injuries. The first case was a young soldier of two years' service, who committed suicide by cutting his throat with a razor. A verdict of temporary insanity was returned. The second case was that of an old soldier of 18 years' service, who committed suicide by shooting himself through the head with his rifle while on sentry; in this instance the coroner's jury returned a verdict of *felo de se.*

Two minor surgical operations are recorded, one for fistula in ano, and one for removal of tumour from scalp.

Invaliding.—The number of men invalided home during the year was 76, and of men finally discharged 28, being in the ratios of 38·23 and 14·08 per 1,000, the former being higher by 6·12 and the latter lower by 6·35 per 1,000 than in the preceding year respectively; while in comparison with the preceding decennial average the rate of invaliding home is lower by 4·80 and the rate of final discharge by 3·57 per 1,000. The principal causes of invaliding were febrile affections 11 cases, secondary syphilis 3, phthisis pulmonalis 9, and debility 21 cases; and the chief disabilities causing final discharge were phthisis pulmonalis 6 cases, mental affection 4 cases, diseases of the eye and those of the respiratory system 3 cases each, also debility 3, digestive disorders 2, and others in single instances.

China and Straits Settlements.

Officers.—The average strength of officers was 91; there were 35 attacks of illness, one death, and 5 invalided, being in the ratios of 384·6, 10·99, and 54·94 per 1,000, the rate of prevalence of sickness being slightly higher, but those of mortality and invaliding slightly lower than in the preceding year. The prevailing diseases were fevers, hepatic affections, and diarrhœa. The death was due to erysipelas. The invaliding is returned under debility in 4 instances and abscess in one.

Women.—The average strength was 73, and the attacks of illness 67. No death occurred. The sick rate, 917·8 per 1,000, is a decrease on that in 1883. Fevers (including a case of puerperal fever), uterine diseases, and digestive affections were the principal ailments.

Children.—Forty-nine attacks of illness are recorded in a strength of 120 children, and 7 cases proved fatal. The rate of prevalence, 408·3 per 1,000, shows a considerable decline, and the mortality rate, 58·33, a slight increase on the corresponding rate in 1883. Fevers 12 cases, diarrhœa 8, debility 5, were among the most frequent causes of illness, and the deaths were due to diseases of the nervous system in 4 cases, and to syncope, croup, and dysentery, in one case respectively.

Sanitary Conditions.—The Principal Medical Officer reports that "the general health of the troops in the Command shows a marked improvement during the year under consideration. The reduction in admissions in Hong Kong has been chiefly in those for fevers and debility; at the Straits a diminution in the number of admissions for fevers of no less than 407 is reported from Tanglin alone." At the latter place the decrease of sickness is said to be attributable to improved drainage and sanitary conditions. Barrack accommodation at Hong Kong is reported as fully occupied; at the stations in the Straits Settlements the accommodation is sufficient. Ventilation, warming, and lighting is satisfactory throughout the Command. The drainage at Hong Kong is fairly good, both in cantonments and vicinity, though bad smells still arise in hot weather, as little has yet been done to carry out the improvements recommended. At Tanglin improvements in drainage have been carried out with beneficial result. Cooking reported satisfactory, the rations as fairly good; the monotony of the beef ration is complained of. Water supply at Hong Kong is "of excellent quality, and supply is at all times sufficient, though in the dry weather not so large as would be desirable, but new waterworks are in course of construction which, when completed, will afford a practically unlimited supply." At Singapore and Penang water is excellent and abundant.

Hospital accommodation is reported to have been ample. The Principal Medical Officer alludes to the recommendations of his predecessor, in which he concurs, that a new and complete military hospital should be erected on shore instead of the confined and inconvenient hospital ship "Meanee." At the same time he recommends the provision of a hospital for women and children. It is reported that the sanitarium at Hong Kong has, in most cases, proved very beneficial to those sent there for change from the "Meanee."

With regard to improvements during the year, it is reported that little has been done at Hong Kong with the exception of current repair. Movable canvas screens have been placed over the ports of the hospital ship; some marshy land near the sanitarium has been drained, and some eucalyptus and other trees have been planted. The improvements in drainage at Tanglin has already been alluded to. A church has been erected at Tanglin and some of the barrack bungalows have been new roofed. At Penang the swimming bath has been lined with concrete.

II.—ASIATIC TROOPS.

The Asiatic troops in the Command consist of Gun Lascars, of which the head-quarters was stationed during the year at Hong Kong, and a detachment at Fort Canning, Singapore. The average strength was 180; there were 189 admissions into hospital, 4 deaths took place, and 6 were invalided, being in the ratios of 1050·0, 22·22, and 33·33 per 1,000 respectively. The admission rate shows a decrease of 148·9, while the death and invaliding rates show an increase of 5·18 and 27·65 per 1,000 respectively. Fevers caused 46 admissions, injuries 34, disorders of the digestive system 29. The deaths were due to valve disease of the heart one case, debility two, and fracture of spine one. The causes of invaliding were phthisis pulmonalis three instances, synovitis in one and debility in two instances.

China and Straits Settlements.

XII.—ON THE HEALTH OF THE TROOPS SERVING IN INDIA.

Sickness and Mortality.

Bengal.

The average strength of the warrant officers, non-commissioned officers, and men in India was 55,252; the admissions into hospital were 82,586; and the deaths 720, of which 680 took place in India, and 40 (being those of invalids) on the passage to or after arrival in England. The average number of constantly sick was 3722·58. The rates from these numbers are, for admissions 1494·7, for deaths 13·03, and for constantly sick 67·37 per 1,000 of the strength.

The sickness for each of the three commands is shown in the following table:—

—	Average Annual Strength.	Admitted into Hospital.	Deaths. In India.	Deaths. Of Invalids.	Deaths. Total.	Invalids sent Home.	Invalids discharged the Service.	Constantly sick.
Bengal - -	33,716	55,448	391	17	408	1,073	526	2389·16
Madras - -	10,812	11,960	93	7	100	350	156	639·52
Bombay - -	10,724	15,178	196	16	212	338	108	693·90
Total - -	55,252	82,586	680	40	720	1,761	790	3722·58
Ten years, 1874—83 -	563,777	826,403	9,260	619	9,879	22,292	9,084	34939·00

continued.

—	Ratio per 1,000 of Mean Strength. Admitted.	Ratio per 1,000 of Mean Strength. Died.	Ratio per 1,000 of Mean Strength. Invalided Home.	Ratio per 1,000 of Mean Strength. Invalids discharged.	Ratio per 1,000 of Mean Strength. Constantly sick.	Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
						Days.	Days.
Bengal - -	1644·6	12·10	31·82	15·60	70·86	25·86	15·72
Madras - -	1106·2	9·25	32·37	14·43	59·14	23·22	20·99
Bombay - -	1415·3	19·76	31·52	10·07	64·70	23·68	16·73
Total - -	1494·7	13·03	31·87	14·30	67·37	24·66	16·50
Ten years, 1874—83 - -	1465·8	17·52	39·54	16·11	61·97	22·62	15·43

I.—BENGAL.

Bengal

The average strength of warrant officers, non-commissioned officers, and men serving in Bengal in the year 1884 was 33,716, the admissions into hospital 55,448, the deaths 408, including those of 17 invalids, and the number constantly sick 2389·16. The ratio per 1,000 for admission was therefore 1644·6, that of death 12·10, and that of constantly sick 70·86. Compared with the corresponding rates for the preceding year an increase of 201·0 per 1,000 has occurred in admission rate, and one of 3·05 per 1,000 in that of constant inefficiency through sickness, but in the mortality rate there is a fractional decrease. In comparison with similar average rates for the preceding 10 years an increase of 114·7 per 1,000 is observed in the rate of prevalence of sickness and one of 7·35 in the rate of inefficiency from this cause; but the death rate has declined by 6·64 per 1,000. The average sick time to each soldier was 25·86 days, and the average duration of each case of sickness 15·72 days, the former being longer by 1·11 days than the corresponding period in the previous year, and the latter shorter by 1·42 days; but compared with the average of similar periods in the 10 years preceding both are longer, the former by 2·68 days and the latter by about half a day.

The total loss for the year by death and final discharge from the service was 934, or at the rate of 27·70 per 1,000, which is fractionally greater than the rate in 1883.

With regard to the rate of constantly sick it is stated in the report of the Principal Medical Officer, Surgeon-General C. D. Madden, that "it does not " indicate the accurate measure of inefficiency, as up to the end of July it was " the custom for men with slight illnesses to be detained in hospital, and for " convalescents to attend hospital. Since the beginning of August, however, " the practice of detaining men was discontinued, and all those whose sickness " required treatment in hospital for a day were admitted; this will partly " account for the considerable increase in the admission rate; and the com" paratively small increase in the constantly sick rate.

"The increased admission rate is also in great measure due to an outbreak " of malarious fever, which disease was very prevalent during the latter half " of the year."

The sickness and mortality at the different stations in the command are shown in Abstract XV., taken from the report received from the Principal Medical Officer. From this table it is observed that, as compared with the preceding year, the admission rate is increased in the following administrative circles: Presidency, Allahabad, Saugor, Meerut, Peshawar, and, notably, Lahore, Gwalior, and Sirhind; but a decline has occurred in the Rawal Pindi, Oudh, and Rohilcund circles. The highest admission rate in any station occurred at Delhi, where it amounted to 4778·5 per 1,000, nearly twice as much as in the previous year, and nearly three times as great as the decennial average rate, or the average of the whole command. The cause of this high rate was the great prevalence of ague, for which alone there were 1,892 admissions, or 82 per cent. of the total admissions, 2,308, the average strength being 483. From the same cause the sickness at Fort Lahore, Mean Meer, and Amritsar, was also great, the rates of admission being 3795·3, 3476·4, and 3139·2 per 1,000 respectively. In Fort Lahore the increase of prevalence is considerable, amounting to 1225·1 per 1,000 as compared with the rate in the previous year, and 1457·2 above the decennial average; Mean Meer in these comparisons shows an increase of 819·3 and 624·3 per 1,000 respectively; but with regard to Amritsar the increase is not so strongly marked, being 465·0 above the average rate, but only 65·7 per 1,000 above the rate in 1883. Of stations in the plains the lowest admission rates are found in Sitapur, Dum Dum, Shahjehanpur, and Saugor, the admission being very little in excess of the average strength; the rates for these stations are each below the corresponding decennial average rates, and, with the exception of Dum Dum, below those in the preceding year. Among the hill stations the rates of admission vary a good deal, and in some, on account of very limited average strength, appear rather high. Of those with an average strength of over 150 men may be mentioned Darjeeling, with a rate of 1207·5 per 1,000, Ranikhet 1006·7, Jutogh 1674·5 per 1,000, all of which are above average rates, whilst Naini

Bengal.

Tal 1253·5, and Dagshai 945·0 per 1,000 are below average rates. The lowest rate was 866·2 per 1,000 at Chakrata.

The highest rates of mortality occurred in Campbellpore, Fort Lahore, and Fatehgarh, and were 35·93, 31·50, and 31·25 respectively; the rates at Campbellpore and Fatehgarh are considerably above the average mortality rates for these stations, but in the case of Fort Lahore there is a decline observed, the decennial average rate of mortality being 40·98 per 1,000. In none of these instances does it appear that the high rate of mortality was due to any particular cause, but the deaths resulted from various diseases. Exclusive of hill stations, low death rates occurred at Jubbulpore 1·60, Nowshera 3·48 per 1,000, Jullundur 4·28, and Saugor 5·41 per 1,000. Among hill stations, with a moderate average strength, over 150, the mortality rates varied from 20·88 at Cherat and 16·60 per 1,000 at Darjeeling to *nil* at Naini Tal and Jutogh.

The more important of the health statistics of the different corps which served in the command during the year will be found in the Abstract XLIII., taken from the report of the Principal Medical Officer.

With regard to the sickness and mortality in the different arms of the service, it is observed that in the cavalry the admission rate was 1795·2 per 1,000, and the death rate 9·73 per 1,000; in both these rates an increase has occurred as compared with those in the preceding year; being 475·3 and 4·22 per 1,000 respectively. In the artillery the admission rate, 1838·5 per 1,000 is augmented by 396·7, and the death rate 20·51 per 1,000 by 8·34. In the infantry the rate of admission, 1628·4 per 1,000 shows an increase of 144·4, but the rate of mortality, 9·24 per 1,000, has declined by 1·64 per 1,000. Among the cavalry the highest admission rate occurred in the 8th Hussars, 2432·7 per 1,000, the regiment being quartered at Meerut the greater part of the year, after arrival from Mean Meer. The highest rate of mortality, 41·67 per 1,000, is recorded against the 3rd Dragoon Guards at Muttra; this, however, is on account of two deaths having occurred in the corps shortly after its arrival from England as late as the middle of November, the average annual strength being consequently very small. Of regiments some time in India, the highest mortality rate was furnished by 1st Dragoon Guards at Rawal Pindi, 13·89 per 1,000. The lowest admission rate in the same manner was 1278·9 per 1,000 in the 13th Hussars at Muttra, and the lowest death rate 5·21 in the 6th Dragoon Guards at Sialkot. In the artillery on account of the comparatively small average annual strength of batteries, the rates of both admission and mortality vary considerably. The highest admission rate among batteries any length of time in the country was in the 9th Battery, 1st Brigade, Eastern Division, quartered at Delhi, 4630·6 per 1,000. The 4th Battery, 1st Brigade, Lancashire Division, quartered at Fort Lahore with a detachment at Amritsar, also had a high admission rate, 3793·1 per 1000, while the admission rates of D and E Batteries, 4th Brigade, at Lucknow and Bareilly, were only 866·3 and 993·4 per 1,000 respectively. In the infantry the highest rate of admission was 5108·0 per 1,000 in a half battalion 1st Suffolk Regiment quartered at Delhi throughout the year; the 1st East Lancashire Regiment at Mean Meer also showed high rate of admission, 3736·8 per 1,000. The highest mortality rate was 24·10 per 1,000 in the half battalion 2nd Lincolnshire Regiment, quartered at Benares, and the lowest, 1·18 per 1,000, in the 1st Battalion King's Own Borderers at Umballa and Dagshai; the 2nd Highland Light Infantry at Umballa shows no mortality rate, but the regiment was only in the country two months.

The admissions, deaths, and invaliding, &c. in the different classes and orders of diseases are shown in Abstract XIV., and the prevalence and mortality of the various orders of diseases in each of the military divisions of the command in Abstract XVI.

General Diseases.—The admission rate for this class of diseases was 856·5 per 1,000, and the mortality rate 6·67. As compared with the preceding year an increase of 194·7 is observed in the former, and one of ·88 per 1,000 in the latter; but in comparison with corresponding average rates for the previous five years a decrease is noticed in both, being 46·3 and 3·15 per 1,000 respectively.

The number of admissions in the *febrile group* of diseases was 23,377, and of deaths 180, including two of invalids. The number constantly sick was

674·59. The ratio of admission was therefore 693·3 per 1,000, that of death 5·34, and that of constantly sick 20·01. Compared with the corresponding ratios for 1883 an increase has taken place to the extent of 197·0 per 1,000 in that of admissions, 1·12 in deaths, and 4·02 in that of constant inefficiency on account of fevers; but compared with average rates for five years a decline in admission and mortality is noticed, equal to 147·7 and 2·81 per 1,000 respectively; with regard to the average constantly sick rate, for three years, there is a slight increase. *Bengal.*

Among the different administrative circles that of Lahore gave the highest admission rate for febrile diseases, 1586·1 per 1,000, followed by Gwalior, 1133·7 per 1,000, the lowest rates being in the Oudh and Rohilcund districts, 222·8 and 233·6 per 1,000 respectively. The highest mortality rate was, 15·67 per 1,000, in the Gwalior circle, and the lowest, ·72 per 1,000, in that of Saugor. Comparing the prevalence and mortality from fevers in the different districts with the returns for the previous year it is observed that the former is increased in the Presidency by 40·1, Allahabad by 44·5, Saugor 159·7, Gwalior 464·6, Meerut 505·9, Sirhind 411·1, Lahore 748·8, and Peshawar 112·9 per 1,000; but it is decreased in the Oudh circle by 130·5, in Rohilcund by 382·1, and Rawal Pindi by 81·6 per 1,000. The mortality from fevers was greater in the Presidency circle by 1·83, Oudh by 1·57, Gwalior by 3·17, Meerut by 5·29, Lahore by ·67, Rawal Pindi by 2·51, and Peshawar by ·70 per 1,000, but it was less in the Allahabad circle by 1·86, Rohilcund ·14, Saugor 2·37, and Sirhind by 1·78 per 1,000. Eruptive fevers caused 78 admissions, of which 50 were due to small-pox, 6 of the cases being fatal. The rates of prevalence and mortality from small-pox were 1·5 and ·18 per 1,000 respectively as compared with 2·5 and ·20 in the previous year. The disease appeared in 16 different stations, of which the following were the principal: Dinapore 13 cases, the disease was epidemic among the civil population in the early part of the year, and attacked the troops in March, April, and May; in Cawnpore, 6 cases; in Umballa, Benares, Fyzabad, and Roorkee, 4 cases respectively; Agra and Allahabad three cases each; Fatehgarh two, and other stations with single instances. The fatal cases occurred at Benares, Cawnpore, Fatehgarh, Ferozepore, Fyzabad, and Peshawar, one case respectively. Four admissions are recorded for scarlet fever, three at Delhi, and one at Chakrata. A case of dengue occurred at Jutogh. The remainder of the admissions were due to measles in nine instances, and a few cases of cow-pox or chicken-pox.

Continued Fevers.—Among these enteric fever caused 423 admissions and 111 deaths, being in the ratios of 12·5 and 3·29 per 1,000 as compared with 8·0 and 2·44 respectively in the previous year, and with quinquennial average rates of 7·8 and 3·00 per 1,000. The per-centage of mortality to cases treated was 26·2, which compares favourably with 30·6 in the preceding year. In Abstract XVII. is given a table, taken from the report of the Principal Medical Officer, showing the stations at which the admissions and deaths took place in each of the four quarters of the year. In this it will be observed that the disease, as in other years, was most prevalent in the second quarter, next in the third quarter (though in this year there is greater mortality as compared to admission in the third than the second quarter), and last in the fourth and first quarters; or, in other words, there is the greatest prevalence of the disease in the hot season, less in the rainy season, and least in the cold season. The disease was present more or less in all the administrative circles, and 47 different stations return admissions from it. The greatest number of cases in one station was 54, with 9 deaths, at Lucknow (in the previous year also the greatest incidence of the disease occurred in this station). The Medical Officer in charge of the station hospital, Brigade Surgeon W. Ashton, states that "the source of the disease could not be ascertained in any of the cases. "The sanitary condition of the barracks and their vicinity was always in "excellent order, the water supply was very good, and the filters were "well attended to." Under these circumstances he is inclined to ascribe the origin of the cases to "the influence of unaccustomed heat on young persons. "This theory is strengthened by the fact that 29 out of the 53 cases (in the "cantonment) occurred in the Derbyshire Regiment, the most recent arrival "in India and which contained a larger proportion of young soldiers than any "other corps in the garrison." Of the total number of cases 43 occurred in

Bengal.

men between 20 and 24 years of age, and 48 in men who had less than three years service in the country. One case happened in the military prison, the man had been a good deal over two months in prison, to which he came from Ranikhet; the sanitary condition of the prison was very good, and it was not possible to fix a cause for the disease. At Morar there were 33 cases and 17 deaths, the mortality being equal to 51·5 per cent. of cases treated. In this instance the greatest prevalence of the disease was in the third quarter of the year, 18 cases and 9 deaths, and then 6 cases and 3 deaths in the fourth quarter. The medical officer describes the type of the disease as severe, and states that, as usual, most of the cases occurred in young soldiers lately arrived in India, 22 of the cases being under 24 years of age; and the average age of all the cases 23¼ years. He also states that he is unable to offer any satisfactory explanation of the cause of the outbreak; careful inspection at any time revealed only a few trifling sanitary defects, and he can only attribute its occurrence to climatic causes and individual susceptibility. At Sitapur 24 cases and 4 deaths occurrred, all in the first half of the year. In this instance the medical officer in charge attributes the disease to an insanitary condition of the latrines near barracks, or at any rate points out that after this condition was removed there were no more cases of enteric fever, and the health of the troops generally improved. At Mooltan 23 cases were admitted, and 6 died; no insanitary condition in barracks existed to account for the disease, most of the cases occurred in young soldiers, and it was supposed that it might have been contracted in the neighbouring villages. In Fyzabad there were 22 cases and 3 deaths, here adulterated milk, or water affected by changes in the subsoil water at certain seasons, are mentioned as probable causes. At Rawal Pindi and Meerut there were 21 cases in each station, with 6 and 5 deaths respectively, no local causation could be discovered in either instance. In Agra, where there were also 21 cases, 7 being fatal, certain defects in sanitation were discovered on inspection, but none of a nature or of sufficient moment to be a cause of enteric fever. At Dinapore 17 cases and 5 deaths occurred, attributed to the insanitary condition of the neighbouring bazars; and at Umballa 17 cases, 1 fatal, but nothing definite could be ascertained concerning their etiology. Other stations return a good many cases, such as Mean Meer 14, Sialkot 11 (with 7 deaths), Subathu 10, Cherat 12, and many others with single numbers which it is not possible to refer to in detail. Simple continued fever and febricula caused 3,692 admissions and 2 deaths being at the rate of 109·5 and ·06 per 1,000 respectively. The rate of prevalence is almost the same as it was in the preceding year, but is below the average rate by 29·9 per 1,000. Continued fevers taken together were most prevalent in the Gwalior circle the ratio amounting to 310·0 per 1,000 followed by Peshawar with 281·6 per 1,000; the lowest rates are found in Meerut, Presidency, and Saugor circles, 45·8, 66·7, and 82·6 per 1,000 respectively. Compared with the return for the previous year an increase of prevalence, equal to 173·6 per 1,000, is noticed in the Peshawar circle, one of 128·5 in the Gwalior circle, and of smaller numbers in the Rohilcund, Sirhind, and Rawal Pindi divisions; in all the others a decrease has occurred, though in none to a very great extent.

Paroxysmal Fevers caused 19,026 admissions and 12 deaths, of these 318, and all the deaths, were due to remittent fever, the whole of the remaining admissions being caused by ague. The ratio per 1,000 was for admission 564·3, being more than one third of the total admission rate from all causes. Compared with the corresponding rate for the preceding year an increase is noticed of 193·4 per 1,000, but still the rate is below the average of the previous five years, by 17·7 per 1,000. The mortality rate is small, ·36 per 1,000, and is less than in 1883, and considerably below the quinquennial average rate. The number of men constantly ineffective on account of malarious fevers was very nearly 500, and in the ratio of 14·76 per 1,000 of strength, which is not only considerably above that in the preceding year but above the average rate. The greatest prevalence of malarious fevers is found to have been in the Lahore circle, the rate of prevalence being 1413·4 per 1,000. In Mean Meer alone 1,764 admissions are recorded in an average strength of 846, or more than two to each individual. High rates of prevalence are also noticed in the Meerut and Gwalior circles, reaching 957·8, and 819·3 per 1,000 respectively; the least prevalence of this class of fevers occurred at Oudh, 114·2; and in Rohilcund, 136·4 per 1,000. Compared *Bengal.* with the return for the previous year it is discovered that with the exception of Oudh and Rohilcund, and the northern districts, Rawal Pindi and Peshawar, the increase of malarious fevers was general throughout the country. In the Lahore circle these fevers were more than twice as frequent, the increase of rate being 765·8 per 1,000, in the Meerut circle it was 545·4, and in the Sirhind circle 372·2 per 1,000. In those circles where a decline has taken place, the only one of any magnitude is found in Rohilcund, 382·3 per 1,000.

Cholera caused 71 admissions and 45 deaths, being in the ratios of 2·1 and 1·33 per 1,000 respectively, which are above those corresponding in the preceding year when there were 48 cases and 32 deaths, but are both less than half the similar average rates for the previous quinquennial period. In Abstract XVIII. is given a table taken from the report of the Principal Medical Officer showing the stations in the command at which the admissions and deaths from cholera took place in each of the four quarters of the year. From this it will be observed that the great majority of the cases took place in the third and fourth quarters of the year, 34 and 27 respectively; in the second quarter there were 9 cases, and only one in the first. Six of the districts and 17 stations were attacked. The greatest incidence of the disease was at Meerut, where there were 28 cases and 13 deaths. In a special report on the outbreak, Surgeon J. R. A. Clark states that "it commenced " with three isolated cases occurring between June and September, and on the " 9th of the latter month it assumed an epidemic form and continued so until " the end of October. Including civilians and natives there were 56 cases in all " and 35 deaths, the mortality to attacks being at the rate of 62·5 per cent. Of " the cases among the soldiers it is noticeable that the great majority occurred in " the artillery; this is said to have been noticed in every outbreak at this " station for years past. The weather previous to the outbreak had been very " unseasonable. Heavy rains for nine or ten days at the end of June were " followed by a month of very hot weather free from rain. After this, rain and hot " weather alternated until the end of September when very heavy rain " occurred; flooding the country, this was succeeded by fine weather. About " this time a large tract of land lying behind the infantry and artillery " barracks, which had not been disturbed for years, was prepared for sowing " grass and being kept as grass land." At Allahabad 10 cases and 5 deaths occurred. It is reported by the medical officer in charge that the disease prevailed during May and June in an epidemic form amongst the native population, causing 300 deaths, and in June two cases occurred among the troops. In the early part of September there was a most exceptionally heavy fall of rain, at which time the city and neighbourhood were reported as free from cholera. Cases then commenced and continued to occur until the 17th October, when the troops were sent out by rail to camps far off, and the disease subsided. At Dinapore 9 cases, 7 being fatal, occurred between 6th August and 10th October. It is reported that the disease was existing in the surrounding villages from the commencement of April until the end of October. There was no sanitary defect existing in or about the barracks occupied by the troops. At Morar there were in all 6 cases of cholera, including one officer, and of these 5 proved fatal. One case occurred in August, 4 in October, and one in November. With regard to the cases in the last two months, the medical officer remarks that their occurrence was "somewhat strange, as there was no cholera prevalent in the bazar or in " the surrounding villages; indeed, it is recorded that not a case occurred in " any of the villages within ten miles of cantonment during the year, and at " the time the disease was not even prevalent in the capital of Scindia, from " which it is seldom absent during the hot and rainy months." At Bareilly three cases of cholera, all fatal, occurred among the troops towards the end of October, when the disease had almost disappeared in the district in which it had been very prevalent for three months. At Cawnpore, Lucknow, and Fortress Gwalior, two fatal cases occurred respectively; at Fort William there were two cases, of which one was fatal; and at the remaining stations affected there were only single instances of the disease.

Other febrile affections caused 87 admissions and 4 deaths, including that of an invalid. Among the cases were 77 of erysipelas, and one of diphtheria. All the deaths were caused by erysipelas.

Bengal.

Diseases of the Constitutional Group.—The various forms of rheumatism caused 1,174 admissions, of which 207 cases, two fatal, were rheumatic fever. The rate of admission, 34·8 per 1,000, is lower than that in the previous year. Rheumatic affections were most prevalent in the Presidency and Peshawar circles, and least in that of Saugor. Compared with the previous year's report, an increase of prevalence of rheumatism has occurred in the Sirhind and Meerut divisions, and to a fractional extent in that of Allahabad; a decrease is observed in all other districts, most marked in Oudh and Lahore.

The rates of admission for primary and secondary syphilis were 86·7 and 24·4 per 1,000 respectively, and these rates approximate very closely, not only to those corresponding in the preceding year, but also to those of the average similar rates for the previous five years.

Including gonorrhœa and its sequelæ, the admission rate for all forms of venereal disease was 260·6 per 1,000, which is higher than the similar rate in 1883 by 13·7 per 1,000, and than the corresponding average rate by 19·5. The average number of men constantly ineffective on account of these diseases was 630, or at the rate of 18·69 per 1,000, which is fractionally above the rate in the previous year, and higher than the quinquennial average rate by 2·23 per 1,000.

With regard to the different districts, the highest rate of prevalence of primary disease occurred in the Rawal Pindi division, 139·1 per 1,000, followed by the Presidency with 137·2; Saugor also shows a high rate, 119·3 per 1,000. The districts least affected were Gwalior and Rohilcund, the rates being 45·3 and 54·0 per 1,000 respectively. Secondary syphilis shows its highest admission rate, 36·8 per 1,000, in the Oudh division, and the lowest, 11·2, in Gwalior.

Compared with the previous year, primary syphilis was less prevalent in the Peshawar district by 58·4 per 1,000, in Meerut by 27·2, also to a less extent in Oudh, Rohilcund, Sirhind, and Lahore. In Rawal Pindi it was increased by 61·4 per 1,000, in Allahabad by 35·0, and in some degree in the Saugor, Presidency, and Gwalior districts. With regard to secondary syphilis, the most marked variations are an increase of 29·8 per 1,000 in Saugor, and one of 13·7 in Allahabad, and a decrease of 16·8 per 1,000 in the Gwalior district.

Two hundred and forty-two admissions and 37 deaths are shown to have occurred from tubercular diseases; the rate of prevalence, 7·2 per 1,000, and that of mortality, 1·09, do not differ greatly from the corresponding average rates, or from those in the preceding year. Of the total number of admissions 203 were due to phthisis pulmonalis, and 28 to hæmoptysis. The deaths were caused by phthisis pulmonalis in 34 instances, by acute miliary tuberculosis in two, and tabes mesenterica in one. The greatest prevalence of these affections was in the Oudh and Rohilcund districts, and the least in Gwalior. The relatively small number of admissions in each division renders a comparison of their proportional differences to the records of the preceding year unnecessary.

Scurvy and Purpura were the causes of the admission of 79 men, or at the rate of 2·3 per 1,000, as compared with 2·8 in 1883; both these rates, however, are above the average. Of the cases 11 occurred in the Allahabad district, 19 in Gwalior, 10 in Meerut, and 24 in Sirhind. These affections were less frequent in the Rohilcund, Saugor, Oudh, Rawal Pindi, Peshawar, and Lahore districts, but rather more so in the remainder. The death was due to purpura hæmorrhagica, and occurred at Lucknow.

Other constitutional diseases caused 262 admissions, of which 256 are returned as anæmia, the remainder were two cases of scirrhus cancer, and one of epithelial cancer, all of which had a fatal termination, two of diabetes, and one of general dropsy. The rate of admission for these unclassed constitutional affections was 7·8 per 1,000, a good deal above the average rate, and was due to the prevalence of cases of anæmia.

LOCAL DISEASES.—*Diseases of the Nervous System* caused an admission rate of 19·5 per 1,000, and a death rate of 1·33, both of which have declined as compared with those corresponding in the previous year, the former by 2·6, and the latter by ·30 per 1,000. A decrease is also observed in both as compared with quinquennial average rates, a fractional one only in rate of prevalence, but one of 1·10 per 1,000 in that of mortality. With regard to the different districts, the highest rate of prevalence, 37·9, was reached in that of

Peshawar, followed by Allahabad with 28·1, and Gwalior 26·9 per 1,000, the lowest rate was 7·9 in Saugor, and Meerut and Oudh also have low rates. Mortality from these affections was highest in Gwalior, 3·36 per 1,000, and lowest, indeed *nil*, in Saugor. Compared with the returns for the preceding year, a small increase of rate of prevalence has occurred in Meerut, Allahabad, Sirhind, and Rohilcund, the greatest, 5·5 per 1,000, being in the last-named; in the remaining districts a decrease is observed varying from 13·0 per 1,000 in the Saugor district to ·3 in Rawal Pindi. Mortality has increased in Gwalior by 1·57 per 1,000, and to a less extent in Rohilcund, Meerut, and Peshawar, but has decreased in all other districts. Sunstroke caused 97 admissions and 27 deaths as compared with 127 and 30 respectively in the preceding year. The stations where most cases occurred were Morar 18, with one death; Nowshera 7 cases, 1 death; Ferozepore 5, and 3 deaths; Dinapore and Lucknow 5 cases each, with 2 deaths, &c. In Peshawar 4 cases and 4 deaths are returned. Three fatal cases of hydrophobia occurred, one at Sialkot, one at Umballa, and the third at Bareilly. In the case at Umballa the date and circumstances attending the inoculation were obscure, but the symptons left no doubt as to the correctness of the diagnosis. The case at Bareilly was admitted to hospital on the 13th August, the man having been bitten by a native dog on the 25th May. In the third case, at Sialkot, a boy was bitten by a dog on a finger on 16th January, and died on 14th February; it is stated that the condition of the animal at the time he inflicted the bite is not known. Neuralgia caused a large number of admissions, and epilepsy 67. Sixty-four cases of the various forms of mental disease are returned, being in the ratio of 1·89 per 1,000, which compares favourably with 2·5 in the preceding year. In addition to those already alluded to, 8 deaths were caused by apoplexy, 2 by meningitis, and the remainder by different affections of the brain or spinal cord in single instances.

Bengal.

Diseases of the Eye caused an admission rate of 16·8 per 1,000, above the average rate by 1·2, and fractionally higher than in 1883. In the northern provinces, Peshawar, Rawal Pindi, and Lahore, and also in Oudh, ophthalmic affections decreased in prevalence, but in all other districts they increased. Nearly three fourths of the admissions were due to conjunctivitis, or tarsal ophthalmia; the remaining causes of admission being very numerous.

Diseases of the Ear, at the rate of 15·7 per 1,000, were above the average rate by 3·6, but identical with the rate of frequency in the preceding year. Four fifths of the cases were due to inflammation of the external meatus. *Diseases of the Nose*, principally epistaxis, caused a rate of prevalence of 1·2 per 1,000 which is higher than usual.

Diseases of the Circulatory System show 494 admissions and nine deaths, including two of invalids. The rate of admissions, 14·7 per 1,000, compares favourably with that of 1883, 15·6, and with the average rate, 16·2 per 1,000. Mortality, also, shows a decline in both these comparisons. With regard to prevalence of these affections in different districts it is observed that Sirhind and Peshawar gave the highest rates, 25·5 and 25·9 per 1,000 respectively, and the Presidency the least, 6·1. Compared with the records of the circles in the previous year an increase occurred, in Sirhind of 14·6 per 1,000, and to a less extent in Rohilcund and Meerut, but a decrease in all others. The rates of mortality are all fractional, the highest ·89 per 1,000 being at Peshawar, while in five districts it was *nil*. About three fifths of the total admissions were due to palpitation; among the remainder being 107 cases of valve disease of the heart, with five deaths; 22 of hypertrophy, eight of dilatation, and three of fatty degeneration of the heart, with two deaths; also seven cases of aneurism, one case fatal. A death is also shown from dropsy of the pericardium.

Diseases of the Absorbent System, causing an admission rate of 14·8 per 1,000, were less prevalent than in 1883 by 1·5, and below the average rate by 3·9 per 1,000; 413 admissions out of 498 were caused by affections of the inguinal glands. Four admissions are returned under diseases of ductless glands, two being for goitre and one for pulsating bronchocele and Addison's disease respectively.

Diseases of the Respiratory System gave a ratio of admissions of 45·8, and one of death of ·80 per 1,000; both of these are less than their corresponding ratios in the preceding year by 8·2 and ·04 per 1,000 respectively, and than the quinquennial average rates by 9·6 and ·70 per 1,000. The deaths

Bengal.

numbered 27, including two of invalids. The prevalence of respiratory affections varied from 83·9 per 1,000 in the Peshawar district to 23 Saugor, and the mortality from 1·78 in Peshawar to *nil* in Rohilcund. The variations of rates of prevalence in the different circles as compared with the previous year show a considerable decrease in Oudh and Lahore, equal to 42·2 and 31·9 per 1,000 respectively, also one in Peshawar of 19·5, and slightly in Rawal Pindi, the Presidency, and Rohilcund; in all others there is an increase, the greatest being 16·0 per 1,000 in Meerut. Four fifths of the admissions were due to bronchial affections; there were 136 cases of pneumonia, and 63 of pleurisy. The deaths were due to pneumonia in 16 cases, asthma in two, chronic pneumonic phthisis in two, and bronchitis, laryngitis, œdema of the glottis, abscess, and gangrene of the lung, pulmonary extravasation, and pleurisy, one case respectively.

Diseases of the Digestive System.—Under this head are recorded 7,598 admissions and 50 deaths, including two of invalids. The ratio of admission was 225·4 and that of mortality 1·48 per 1,000. Compared with the preceding year the rate of prevalence differs only by an increase of 1·6 and that of mortality by a decrease of ·50 per 1,000; and in comparison with quinquennial average rates there is a decrease of prevalence equal to 11·5, and of mortality one equal to 2·60, the latter being considerable. The highest rate of prevalence in the various districts was 305·2 in Peshawar, followed by Gwalior with 286·5, and Sirhind 272 per 1,000; the Saugor district shows the lowest rate, 184·6 per 1,000, those for the Presidency, Lahore, and Rawal Pindi 193·1, 202·0 and 204·4 respectively, being but little above it. Among the chief variations of prevalence in the different districts as compared with the return for the preceding year are a decrease of 106·4 in the rate for Oudh, one of 51·0 in Saugor, one of 30·0 in Rawal Pindi, and one of 22·2 in Lahore. An increase is noticed in all other districts, the greatest being in the Presidency, 77·1, and Sirhind 69·3, and the least 7·9 per 1,000 in Allahabad. The highest mortality rate was in the Sirhind circle, and was 2·34 per 1,000, the lowest, *nil*, in Gwalior. Mortality was greater in the Sirhind, Meerut, Pindi, Peshawar, and Oudh divisions than in the previous year but was reduced in all others, particularly in Gwalior, Rohilcund, and Saugor. The principal causes of admission were diarrhœa 1,705 cases, and one death; dyspepsia, 1,452; tonsillitis, 714; hepatic affections, 1,059 cases and 34 deaths (including 39 cases of liver abscess and 26 deaths); dysentery, 729 cases and six deaths; splenic affections, 176 and two deaths, &c.; the remaining deaths were due to ulceration of intestines two cases, and cancrum oris, peritonitis, enteritis, melæna, and intestinal obstruction, one case respectively.

In Abstract XIX. is a table taken from the report of the Principal Medical Officer showing the prevalence of dysentery, diarrhœa, and hepatitis in each of the divisions of the command, and the deaths caused thereby; and in Abstract XX. is a table showing the prevalence of, and mortality from, the same diseases in each quarter of the year. In the former table the admission rate for dysentery is seen to be 21·6, and the rate of mortality ·18 per 1,000, being lower than in the previous year by 1·3 and ·17 per 1,000; the greatest rate of prevalence was 33·6 in the Gwalior district, and the least, 12·9, in the Rawal Pindi circle. Mortality was highest in the Peshawar district, but only reached ·45 per 1,000; and in six of the circles it was *nil*. For diarrhœa the rates of prevalence and mortality were 50·6 and ·03 per 1,000, the former a little higher and the latter lower than in 1883. Rohilcund shows the greatest prevalence of diarrhœa, 109·1 per 1,000, the next rate being 86·7 in Gwalior. Hepatitis, including liver abscess, gave rates of prevalence and mortality of 25·5 and ·83 per 1,000 respectively as compared with 26·1, and 1·04 in the preceding year; the highest rates of both being in the Allahabad district, 35·6 and 1·44 per 1,000.

The second table shows that the greatest prevalence of dysentery was in the third and fourth quarters of the year, the least being in the first; diarrhœa was by far most prevalent in the third quarter, being nearly twice as much as in the fourth quarter, and considerably more than the other two; hepatitis, including liver abscess, gave the greatest ratio of prevalence in the third quarter, followed by the second; while the highest mortality ratio was in the fourth quarter.

Diseases of the Urinary System gave a rate of admission for gonorrhœa and its sequelæ equal to 149·5 per 1,000, which is an increase of 12·5 on that of the previous year, and one of 20·4 per 1,000 on the average. With regard to the prevalence of these affections in the various districts it is observed that with the exception of the districts of Allahabad and Rawal Pindi in which the admission rate declined by 14·2 and 53·8 per 1,000 respectively, it has increased in all by rates varying from 69·1 per 1,000 in Allahabad to 3·3 in Lahore. Other diseases of the urinary system were at the rate of 11·0 per 1,000, almost identical with the corresponding rate in the preceding year and fractionally above the average rate. Among the cases were 17 of Bright's disease, from which one death occurred. A death is also returned from renal calculus. *Bengal.*

Diseases of the Generative System caused an admission rate of 11·9 per 1,000, differing only fractionally from both the average rate and that of the previous year. *Diseases of the organs of locomotion* gave a rate of 6·7 per 1,000—above the average rate by 1·5. Two deaths are returned, both occurred in invalids after arrival at home from lumbar and psoas abscess respectively.

Diseases of the Cellular Tissue show a ratio of admission of 21·8 per 1,000, which is an increase on the average rate as well as that of 1883. Among the cases, 555 with one death, were abscess of cellular tissue. *Diseases of the cutaneous system* were in the ratio of 87·1 per 1,000 differing only by a fraction from the rate in the previous year, but above the average rate by 9·4. Cutaneous affections show an increase of prevalence in the Presidency and Sirhind circles, and a decrease in Lahore and Saugor; the differences in the remaining districts being but slight.

Debility returns 368 admissions, being in the ratio of admission of 10·9 per 1,000, being only about half of the corresponding rate in 1883, and one third of the average rate.

Poisons.—Under this head 350 admissions and seven deaths are returned, being in the ratios of 10·4 and ·21 per 1,000; the admission rate is higher than in the previous year by 4·0, and than the average rate by 5·8 per 1,000. This increase is due to the frequency of the admissions for alcoholic poisoning, and the Principal Medical Officer infers that a great number of cases of illness from drink have been returned under this head, which in other years might have been shown under febricula or dyspepsia. Of the total number of cases, all but 28, and all the deaths, were due to the effects of drink, 72 cases and 1 death being shown as delirium tremens, and 250 cases and 6 deaths as alcoholic poisoning. The remaining cases, all of which recovered, are returned as oxalic acid poisoning in two cases, in both of which the drug was taken in mistake for Epsom salts, and in one case respectively from arsenic, opium, vegetable, and fungi. 22 cases of poisoning by hill nuts, a species of jatropha, occurred in a detachment of troops, at a place called Kalsi, on the line of march between Roorkee and Chakrata; the symptoms produced were vomiting, purging, cramps about the abdomen and extremities, and collapse. All, however, recovered. Recommendation was made that these plants should be removed from the camping grounds and their vicinity, and that notices directing avoidance of them should be put up.

Injuries.—Under the head of general injuries 10 admissions and 14 deaths are returned. The admissions were due to burns and scalds in 9 instances, and in one to multiple injury to a sergeant at Rawal Pindi, resulting from the accidental explosion of a shell; the man died shortly after receipt of the injury; four other men were wounded by the same accident, and two natives were killed. There were 11 deaths from drowning, of which one was suicidal, but all the rest accidental A death by asphyxia from hanging (by sentence of a general court-martial on account of murder) is reported from Cawnpore, and a death by asphyxia from strangling, homicidal, from Dinapore. Local injuries caused an admission rate of 121·7 per 1,000, being an increase on the rate for the previous year of 7·0 per 1,000, and being a good deal above the average rate. Among the admissions were 22 of concussion of the brain, 161 of fractures, and 30 of gunshot wounds. The deaths numbered 26, and were due to the following causes; concussion of the brain, 3 cases; fracture of the skull, 6 cases, of which 5 were accidental, and one was suicidal (a man suffering from melancholia threw himself down a dry well 65 feet deep); other fractures, 4 cases. 11 deaths are returned from gunshot wounds, two of them were homicidal, both at Subathu, the men being shot by a comrade, who also wounded others at the same time; the remaining nine cases were suicidal, it

Bengal. was difficult to find motives in these cases, and in most it is recorded that the act was committed while the man was temporarily insane. A case of suicide by cut throat occurred at Pachmarhi; it is said that the man had been drinking heavily. A death is returned from wounds, homicidal, at Cherat; a sergeant was murdered outside his tent by a Pathan thief; there were eight wounds on the body, two being of a penetrating and fatal character.

In all there were 12 cases of suicide and four of homicide; also one case of death by sentence by the law.

Surgical operations.—The following are recorded:—An amputation of the fore arm on account of gunshot wound—the man was subsequently invalided; an amputation of the upper third of the thigh on account of compound comminuted fracture—the result was fatal. Minor amputations of thumbs, fingers, toes, two, four, and one respectively, for various causes; all had a satisfactory result. The right ulnar artery was tied on account of traumatic aneurism, and the radial recurrent artery on account of a self-inflicted incised wound, with successful results in both cases. An excision of the eyeball on account of amaurosis and threatened sympathetic disease of the sound eye was successfully performed. One case of tracheotomy and one of laryngotomy terminated fatally. An operation for strangulated hernia was successful, and the man was invalided. Aspiration of hepatic abscess was performed in four instances, with fatal result in two cases, the other two did well. A case of amputation of the penis, on account of epithelial cancer, gave temporary relief, but the disease recurred and proved fatal. Two successful cases of lithotomy are reported, also removal of sequestrum in necrosis of lower jaw; removal of tumours, 6 cases, and operations for hæmorrhoids and fistula in ano, 5 and 4 respectively; all successful.

Invaliding.—The number of invalids sent home was 1,073, being in the ratio of 31·82 per 1,000, which is higher than the invaliding rate in the preceding year by 1·32, but lower than the average rate for the previous 10 years by 4·42 per 1,000. The number of men finally discharged as medically unfit for further service was 526, or 15·60 per 1,000, which is above the rate in 1882, but below the decennial average rate by ·50 per 1,000. The principal causes of invaliding were fevers 53 cases, or 1·57 per 1,000; the various forms of rheumatic affections 58, or 1·72 per 1,000; secondary syphilis 34, or 1·01 per 1,000; tubercular diseases, 89 (all but 6 being for phthisis pulmonalis), or 2·64 per 1,000; nervous affections, 110, or 3·26 per 1,000 (including 58 cases of mental disease, being at the rate of 1·72 per 1,000); diseases of the circulatory system, 161, or 4·78 per 1,000 (of these 93 were cases of organic heart disease, and 42 of palpitation, or 2·66 and 1·25 per 1,000 respectively); diseases of the digestive system, 210 or 6·23 per 1,000 (among which were 37 cases of dysentery, and 115 of hepatic affections, the rates being equal to 1·09 and 3·44 per 1,000); and debility, 103 cases, or 3·05 per 1,000. Compared with the invaliding in the previous year, no great change of rates is observed, but among the principal causes of invaliding above cited a decline is observed in the ratios for tubercular diseases and debility, but a slight increase in the remainder is noticed. The principal disabilities necessitating final discharge were rheumatism, 20 cases, or ·59 per 1,000; tubercular diseases, 13, or 1·87 per 1,000; nervous affections, 98, or 2·91 per 1,000: diseases of the circulatory system, 108 or 3·20 per 1,000; diseases of the digestive system, 33, or ·98 per 1,000; debility, 46, or 1·36 per 1,000; and injuries, 42, or 1·25 per 1,000. Compared with the previous year an increase of discharge by invaliding for tubercular diseases, and for diseases of the circulatory system is noticeable, but no great difference is observed in invaliding under other orders of diseases. Compared with average rates, a decrease, to some extent, is seen in invaliding for debility and for diseases of the digestive system.

Abstract No. XXI. gives a table, taken from the report of the Principal Medical Officer showing the comparative mortality and invaliding in the three grades of commissioned officers, non-commissioned officers, and men, during the year 1884, and for the ten previous years. It will be seen that the highest rate of mortality occurred among the officers, and the lowest among the privates; and that the highest invaliding rate was also among officers, while the lowest was among privates. Compared with the return for the previous year, a slight increase in the rate of mortality is observable in all three classes, while as to invaliding, there is an increase among officers and among non-commissioned officers, but a decrease among privates.

Bengal.

Officers.—The average strength of the officers in the command during the year was 1,189, the attacks of illness 846, the deaths 29, and there were 45 officers invalided home. The rate of prevalence of sickness was 711·5, that of mortality 24·39, and that of invaliding 37·85 per 1,000. Compared with corresponding rates in the previous year, there is a decrease of 115·9 per 1,000 observed in the rate of sickness, and one of 19·37 per 1,000 in the invaliding rate, but there is a fractional increase in the death rate. Among the cases treated were three of small-pox, there were also 20 of enteric fever, three fatal, being at the rates of 16·8 and 2·52 per 1,000 respectively, as compared with 12·5 and 3·29 per 1,000 for the men.

Other continued fevers caused 82 attacks of illness, ague 144, and remittent fever 20 cases and 3 deaths; 18 cases of dysentery occurred, with one death, 46 of diarrhœa, and 31 of hepatic disease, with one death from hepatitis. The remainder of the deaths were due to cholera, 2 cases, sunstroke 2 cases, apoplexy, congestion of brain, cardiac disease, pneumonia, Bright's disease, and uræmia, one case respectively. Five deaths from accidental fracture of the skull occurred, one from concussion of the brain, one from accidental gunshot wound, one from hanging, suicidal, and three are returned as cause unknown, of these one is said to have been a case of suicide, and another an accidental death.

Women.—In an average strength of 1,841, there were 2,301 admissions into hospital returned. Of these, however, 570 were cases of ordinary child-birth, reducing the number of admissions for sickness to 1,731, or 940·2 per 1,000, which ratio is greater than that in the preceding year by 107·0. The deaths, 38 in number, gave a mortality rate of 20·64 per 1,000, differing only fractionally from the rate in the preceding year. Eruptive fevers caused 17 admissions, of which 13 were for small-pox, three of the cases being fatal. The admission rate for this class of fevers was 9·2, as compared with that for men 1·5 per 1,000, the greater amount of disease being probably due to the liability to infection when tending on sick children. Enteric fever caused 7 cases and 4 deaths; other continued fevers 87, ague 363, remittent fever 13 and 2 deaths. Two cases of cholera are returned, one of which was fatal. Four cases of puerperal fever happened, and in 3 of them death ensued. Among other diseases, the most prevalent were anæmia 63 cases, conjunctivitis 62, bronchial affections 42, dyspepsia 152, hepatic diseases 35, uterine affections, &c. 84, and debility 290. In addition to the deaths already mentioned, there were 5 due to phthisis pulmonalis, 3 to sunstroke, 2 each to pneumonia, dysentery, hepatitis, and child-birth, and one to erysipelas, anæmia, apoplexy, paralysis, heart disease, diarrhœa, hepatic abscess, cirrhosis of the liver, and nephritis, respectively.

Children.—The average strength was 3,545, the admissions to hospital 2,653, and the deaths 238; the ratio of admission being 748·4, and that of mortality 67·14 per 1,000. Compared with the preceding year, the rate of prevalence of sickness is increased by 195·9, and that of mortality by 22·26 per 1,000. Eruptive fevers caused 184 admissions, of which 10 were for small-pox with one death, 4 for scarlet fever with one death, and 141 for measles with 17 deaths. The rate of prevalence of these fevers was 51·90 per 1,000. Six cases of enteric fever occurred, one of which ended fatally; other continued fevers showed 168 admissions, ague 403 and one death, remittent fever 26 cases and 5 deaths, cholera 2 fatal cases, diphtheria 2 cases, whooping cough 99 and 5 deaths, and erysipelas 4 cases and one death. Among tubercular affections were 29 cases and 11 deaths, due to tabes mesenterica, and a fatal case of tubercular meningitis. Of other prevalent diseases may be noticed 52 cases of infantile convulsions, of which 43 were fatal, 5 of meningitis, 4 fatal, two cases of sunstroke, and one death, also a fatal case of hydrocephalus and epilepsy respectively. Conjunctivitis caused 279 admissions, tarsal ophthalmia 47, and other ophthalmic affections 6. Croup returns 14 cases with 8 deaths, laryngitis 5 with 4 deaths, bronchitis 165 cases and 23 deaths, and pneumonia 14 cases 6 fatal; 153 admissions and 17 deaths are returned for teething, 36 admissions and 6 deaths for dysentery, and 3 cases, fatal, of enteritis. Diarrhœa shows no less than 279 admissions and 44 deaths, and jaundice 8 cases and 2 deaths; 12 deaths are returned under the head of premature birth, and out of 132 cases of debility there were 7 fatal cases. Admissions for

Bengal.

cutaneous affections, as well as for injuries, were also numerous; also for other diseases not calling for special mention.

SANITARY CONDITIONS.—The Principal Medical Officer states that "compared with the previous year the health of the British troops serving in the Bengal Command during the year under report has not been so favourable. The increase of sickness has been largely due to the prevalence of paroxysmal fevers in certain stations. Scurvy, the prevalence of which was the subject of remark in last year's report, has been comparatively less frequent during the year."

The following are the principal remarks made on the health and sanitary condition of the different divisions and stations during the year.

PRESIDENCY DISTRICT.—At Calcutta malarial fevers prevailed, but were of a mild type. The sanitary condition of Fort William as regards barracks and hospital is said to be excellent.

From Dum Dum it is reported that the source of the water supply is open to objection, and the water on analysis has been found to contain certain organic impurities. A trench has been dug round the tank with the view of protecting the water from contamination. At Barrackpore general health was not as good as in previous years owing to the prevalence of ague, which was attributed to the long duration of the rains and to the time the men were resident in the garrison. At Darjeeling a report was made that the ablution room of the hospital was without doors, and consequently the building was very draughty. The defect was remedied.

ALLAHABAD DIVISION.—The health of the troops in the division is not generally reported to have been favourable. The sanitary condition of the various barracks, forts, cells, &c. is reported as satisfactory, and that of the hospitals all that could be desired. The hospital at Benares was put in good order during the year. At Cawnpore an addition to the hospital, which has been sanctioned, was about to be undertaken. The rations are said to have been good and wholesome; and cooking satisfactory. The water supply at all stations is favourably reported on, but at Allahabad during the dry months, May and June, the supply is said to be somewhat short. The drainage arrangements of the cantonments are reported to be satisfactory, and some few minor defects which existed at Allahabad were being remedied.

OUDH DIVISION.—The Principal Medical Officer of this division reports that all the stations are generally in a satisfactory sanitary condition, and that the health of the troops has been better than in the previous year. At Lucknow the barracks and hospitals are said to be in an excellent sanitary state, but "the military prison is badly situated and constructed, rendering ventilation difficult. The buildings have been condemned, and arrangements will be made for occupying others in a more favourable situation." At Fyzabad it is reported that "the surface drainage of the barracks is bad, and recommendations have been made for improving it. Owing to the level nature of the ground the water lodges and remains in a stagnant state for many months. There is also a large tract of marshy ground in the vicinity caused by the overflowing of the river 'Gogia.' The compounds in the officers' lines are reported to be small and overcrowded, and the wells in too close proximity to stables and latrines; but measures were taken to have the last-named defects remedied.

ROHILCUND DISTRICT.—It is stated that the general health of the troops at the several stations has been good, and sanitary conditions generally satisfactory, no recommendations of any importance being necessary. "At Shahjehanpur the health of the men was remarkably good. At Bareilly, Ranikhet, and Chaubuttia, diarrhœa was very prevalent during the rains, owing to changes of temperature, and at Ranikhet there were slight indications of scurvy, necessitating the issue of a ration of lime juice and an increase of vegetables. At Bareilly the station hospital is said not to be very well adapted for the purpose, the wards being narrow and dark, and there being no accommodation for sick women and children." The water supply at all stations was, generally speaking, good and sufficient, but at Chaubuttia the supply became scanty at the end of the hot weather. Drainage is said to be satisfactory at all the hill stations, the barracks being all situated on the sides or top of a slope. At Bareilly, Shahjehanpur, and Moradabad

Bengal.

the surface drains suffice, it is said, to carry off the storm water with tolerable rapidity, but the ground is generally so level that the surrounding neighbourhood is often covered with water during the rainy season, which, probably, accounts for the malarial fever so prevalent at that season.

SAUGOR DISTRICT.—It is reported that the general health of the troops was good, and that at the cantonment of Saugor "there was no over-crowding "or other sanitary defect requiring remedy." The medical officer reports that "the barracks and hospitals now in use have been condemned, and buildings "which were previously considered unsafe, and have not been used in consequence, are to be adapted for occupation; the present barracks and station "hospital are ill-suited for troops." In Saugor an abundant supply of vegetables is said to be obtained from the gardens of corps.

At Jubbulpore the sanitary condition of the station is described as being very satisfactory, and at Nowgong there were no sanitary defects reported, but owing to the great amount of rain the station was not healthy; ague was very prevalent, and the men were very liable to attacks of it, having been resident in Mean Meer for the previous three years. From Pachmarhi it is reported that the troops have been healthy, and the sanitary condition of the barracks, &c. satisfactory; a considerable number of improvements were in contemplation both for barracks and hospital.

GWALIOR DISTRICT.—The Deputy Surgeon-General reports favourably on the sanitary condition of the different barracks, &c. at Morar, Fortress Gwalior, and Jhansi. The hospitals are reported to be in excellent order; that at Jhansi, however, being rather dark, but proportionately cool in the hot weather. The water supply is from wells for drinking purposes, and is good. Tank water is used for washing purposes in the fort. Drainage is said to be everywhere complete and to be assisted by natural configuration.

MEERUT DIVISION.—The health of the troops in the division is reported to have been unfavourable owing to the excessive amount of malarial sickness which prevailed at Delhi, Agra, Meerut, and Fatehgarh. The Deputy Surgeon-General reports very favourably on the general sanitary condition of the barracks, huts, forts and camps. In some cases, as at Agra, the cells are reported to have been hot, but measures were recommended with a view to lessen the evil. The condition of the station hospitals throughout the division is stated to "leave but little to be desired, and any defects apparent are of a "minor kind, and involve questions of comfort, rather than of absolute "sanitary importance." At Fatehgarh the hospital was completed, and is now admirably suited for its purpose, and at Agra the hospital for women and children was completed. With regard to drainage there are said to be difficulties at Meerut and Roorkee in the way of its perfection, as the level of the lines is so unvarying, but "these defects have been well considered, and, "if possible, means will be taken gradually to improve the levels. Some of "the drains at Agra also have so little fall that to clear them thoroughly "requires constant supervision." At Landour the health of the troops was good, and the majority of those sent there derived much benefit from the change to the hills. At Chakrata also the general health is reported to have been good, but a few slight cases of scurvy appeared, owing to an inadequate supply of vegetables; an issue of lime juice was therefore necessary.

SIRHIND DIVISION.—The Principal Medical Officer states that the health of the troops in the division was on the whole satisfactory, though at Umballa it was not so good as in the previous year; this is attributed to the excessive rainfall and to the inundation of the northern part of the station through the bursting of an embankment. A few cases of scurvy occurred, but none of a serious nature. The sanitary state of the barracks was very satisfactory and no disease was traceable to any defect in them. The sanitary condition of the hospitals was also satisfactory. The water supply was good and generally sufficient, but at Umballa in April the supply was reduced on account of the want of rain, and it was necessary for a short time to move some of the battery horses from the station for this reason. With regard to the clothing of the men, the Principal Medical Officer of the division states that it was generally satisfactory and adapted to the climate. He brought to notice, however, the advisability of the men, who are located in the various hill stations, being provided with wadded coats, and he states the matter was under consideration.

Bengal.

Extra blankets are issued during the winter months on recommendation, and all parties marching to and from the hills in the winter months are provided with these blankets. It is stated that the straw used for filling mattresses having been found to become damp and foul during the rainy season, coir was recommended as a substitute, which is now under consideration. At Kasauli during the year some quarters in one of the barracks were converted into a quarter guard and cells; stone floors were put down in two blocks of married soldiers' quarters and improvements made in the drainage of the barracks. The medical officer in charge suggested the following improvements being carried out at Solon: verandahs to be added to all the rooms and stone or cemented floors laid down. An increase in the ablution arrangements in barracks, and an extra building to be provided as a hospital, the present accommodation being inadequate.

LAHORE DIVISION.—The Deputy Surgeon-General states that "the health " of the troops was much influenced by the excessive and late rainfall, which " was considerably above the average at all stations of the division and did not " cease till nearly the end of September. This rendered the troops more " liable to chill, especially at night, and it is presumed that an excess of " malaria occurred after the rains had ceased. Malarious fevers were then " very prevalent, all stations suffered severely, but at Mooltan they almost " assumed the form of an epidemic." The sanitary state of the barracks in all the stations of the division is said to have been satisfactory and any defects which occurred were immediately brought to notice; it is also reported that the sanitary condition of the hospital was all that could be desired. The rations and cooking were satisfactory and vegetables fairly plentiful during the cold season, but in the hot season and the rains "the want of a due " amount tends to produce various complaints of the digestive system, which " often assume a scorbutic character. Lime juice is generally issued and, if " tinned vegetables formed part of the ration for three months in the year it " would be highly beneficial."

RAWAL PINDI DIVISION.—The Principal Medical Officer reports that the health of the troops in this division was more favourable than in the previous year. "At Rawal Pindi steps have been taken to improve the condition of " the regimental bazars, which were previously much overcrowded and a " danger to health. A large central market has been erected for the sale of " all kinds of provisions. Recommendations were made for deepening the " well of the station hospital, which became dry twice in the year." The barrack which has been converted into a temporary hospital was not quite completed at the end of the year, but the hospital for women and children was improved. It is reported that the sanitary state of all the barracks and hospitals was very good and was carefully attended to; the lighting of both was also satisfactory. Water supply was generally good; it is said that the question of sinking more wells was considered but it was thought that the total supply would not be increased. At Sialkot and Campbellpore sanitary arrangements were satisfactory and carefully supervised, and the same is said of Murree and of all the gullies, " where the men enjoyed excellent health and " did not suffer from being under canvas during the rains. At Topa camp " the men suffered from diarrhœa during the month of July; this was caused " by the water being unfiltered and was checked as soon as the recommenda- " tions made were carried out."

PESHAWAR DISTRICT.—The health of the troops is reported as satisfactory and no serious sanitary defects were brought to notice. The Principal Medical Officer attributes the improved health of the troops to " the small rainfall and " gradual approach of the cold weather; to the improved water supply which " is now obtained from the Bora river and is distributed in iron pipes; and " to the removal, during the hottest months of the year, of part of the " garrisons of Peshawar and Nowshera to Cherat, where they remained from May " to November." At Peshawar it is reported that sanitation was carefully carried out. One of the station hospital buildings has been entirely renovated and others are under repair. At Nowshera some of the barrack buildings were fitted with wooden ceilings and the remainder were to be improved in a similar way. At the different stations lighting of the barracks and hospital is reported as satisfactory; rations were good, vegetables plentiful and freely

Bengal.

used by the men, and cooking satisfactory. Great attention was paid to the clothing, and all changes which were recommended were promptly attended to.

II.—MADRAS.

Madras.

The average strength of warrant officers, non-commissioned officers, and men was 10,812, the number of admissions to hospital 11,960, and the deaths 100, inclusive of those of invalids who died on passage home or after arrival in England; the number constantly sick was 639·52. The ratio of admission was therefore 1106·2 per 1,000, that of death 9·25, and that of constantly sick 59·14 per 1,000. Compared with the corresponding rates for the preceding year, an increase of 115·2 per 1,000 has occurred in the rate of admission, but a decrease of 2·06 per 1,000 in that of mortality, and a fractional one in the rate of constant inefficiency through sickness; and in comparison with similar average rates for the preceding 10 years a decrease has occurred in all the rates, being equal to 67·6 in the admission rate, 5·81 in the death rate, and to ·98 per 1,000 in the rate of constantly sick. The average sick time to each soldier was 23·22 days, and the average duration of each case of sickness 20·99 days, the former being longer than the corresponding period in the previous year by 1·42 days, and the latter by ·99 days. The periods are also longer than those of the decennial average by 1·99 and 2·91 days respectively. The total loss of service by death and final discharge of men from the service was 256 or 23·68 per 1,000 of strength, as compared with 22·80 per 1,000 in the year 1883.

In Abstract XXIII. is a table taken from the report of the Principal Medical Officer, Surgeon-General J. Irvine, C.B., showing the average strength, admissions, and deaths, in the different circles and stations in the command. Excluding the Hill depôts, the highest admission rate, 1553·3 per 1,000, occurred in Rangoon, as compared with 1285·7 in 1883, and with a decennial average rate of 1298·1 per 1,000. St. Thomas's Mount gave a high rate also, 1383·3 per 1,000, which is higher than that in the preceding year by 470·5, and than the average rate by 152·0 per 1,000; the rate for Kamptee was next, 1377·9 per 1,000, which, though higher than in 1883 by 354·8, is less than the average by 82·3 per 1,000. Low rates occurred in Port Blair, 688·0, Seetabuldee 709·1, Cannanore 827·5, and Bellary 964·3 per 1,000, all of which are lower than the corresponding rates in the previous year and those of the average. All the stations in British Burmah show increased admission rates as compared with 1883. The admission rate at Poonamallee, 1942·7 per 1,000, is in excess of that in the preceding year, but below the average; the rate at Wellington, 1185·9 per 1,000, shows an increase in both these comparisons. The highest rates of mortality were 31·58 and 18·18 per 1,000 at Malliapooram and Seetabuldee respectively, but both these stations had a small average strength; of stations whose average strength was over 100, except Hill Depôts, the highest mortality rate was 14·92 per 1,000 at Madras, followed by 12·03 at Rangoon, and 11·53 per 1,000 at St. Thomas's Mount. All these rates are increased as compared with those of the preceding year, but the last two are below average rates, and the first only just above.

The more important of the health statistics of the corps which served in the command during the year will be found in Abstract XLIV. Comparing the different arms of the service, the admission rate for the cavalry is seen to be 1204·4, and the death rate 8·79 per 1,000; both these rates are lower than those corresponding in the previous year, the former by 29·8 and the latter by 1·12 per 1,000; in the artillery the admission rate, 1119·1 per 1,000, was increased by 20·0 above that in 1883, but the death rate, 7·65 per 1,000, has declined by 2·43; in the infantry there was an increase of admission rate in this comparison, equal to 144·0 per 1,000, the ratio reaching 1087·4, but there was a decrease of 2·18 in the mortality rate, which was 8·13 per 1,000. Of the three arms the highest rates of sickness and mortality were in the cavalry. There were only two regiments, the 12th Lancers at Bangalore, admission rate 1308·6 and death rate 6·96 per 1,000, and the 14th Hussars at Secunderabad

Madras.

with rates of 1110·6 and 10·44 per 1,000 respectively. In the artillery, the highest admission rate, 1714·3 per 1,000, was in a battery quartered nearly the whole year in Rangoon, and the lowest, 745·2 per 1,000, in one at Bangalore; of batteries whose average strength was over 100, the highest mortality was 14·18 per 1,000, in a battery stationed most part of the year at St. Thomas's Mount, while the rate was *nil* in several batteries. In the infantry, the highest admission rate, of corps which served throughout the year in the command and whose average strength was over 150, was highest in the 2nd Battalion South Wales Borderers, stationed at Madras, with a detachment at Malliapooram, and reached 1602·9 per 1,000, while the lowest rate, 799·3 per 1,000, is found in the 2nd Battalion Hampshire Regiment stationed at Cannanore; the South Wales Borderers also show the highest mortality rate, 19·45 per 1,000, and the 2nd Battalion Royal Fusiliers, quartered at Bellary, the lowest, 3·49 per 1,000.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XXII., and the relative prevalence of sickness and mortality from them in each of the administrative circles is given in Abstract XXIV., taken from the report of the Principal Medical Officer.

General Diseases.—The rate of admission for this class of diseases was 346·2 per 1,000, and that of mortality 3·52 per 1,000, the former greater than in the previous year by 48·7, and the latter lower by 2·03 per 1,000, but compared with the average rates for the preceding 10 years a decrease is observed in both, 112·9 and ·94 per 1,000 respectively.

Diseases of the Febrile Group.—The rate of prevalence of fevers, 180·6 per 1,000, is greater than that in 1883 by 46·3, and the rate constantly sick, 7·11 per 1,000, by 1·35; but the death rate, 2·87 per 1,000, has declined by 1·27. In comparison, however, with average similar rates for the previous five years a decrease is observed in all these ratios, being 109·9, ·45 and 1·36 per 1,000 respectively. Among the different circles of administration that of Nagpore shows, as it did in the two preceding years, the highest rate of prevalence of fevers, 583·0 per 1,000, which is greater than in the previous year by 159·1; the lowest rate of prevalence, 66·5 per 1·000, was in the Western circle. The Bangalore district is the only one which shows a decrease in rate of prevalence of fevers, 33·3 per 1,000, in all the others an increase occurred, varying from 165·3 per 1,000 in Burmah to a fractional one in Hyderabad. The highest rate of mortality, 4·85 per 1,000, was in the Nagpore circle, those of Hyderabad and the Eastern circle being nearly the same; those of Bangalore and the Western circle being about half, while in Burmah there were no deaths. Mortality decreased in all the districts except the Eastern and Western, the greatest decrease being 7·26 per 1,000 in the Nagpore circle.

Eruptive fevers caused 32 admissions, of which 19 were for small-pox, one case being fatal; the disease, it is said, was epidemic over Southern India. There were 9 cases and one death at Bangalore, four at Madras, two at Kamptee, two at Secunderabad, and single cases in Rangoon and on the march. Of the remaining eruptive fevers 9 were cases of measles.

Enteric fever caused 129 admissions and 18 deaths, being in the respective ratios of 11·9 and 1·66 per 1,000, as compared with 8·8 and 2·73 per 1,000 in the previous year; and against 3·6 and 1·48 per 1,000 respectively in the average of the preceding five years. It will be noticed that although the prevalence of enteric fever is greater, the mortality from it is less; and that the rate of mortality to attacks, 13·9 per cent., compares very favourably with 30·8 in the preceding year.

Abstract XXV. gives a table, taken from the report of the Principal Medical Officer, showing the stations at which the admissions and deaths from enteric fever took place in each of the four quarters of the year. From this it appears that 60 cases, or very nearly half the total, occurred in Bangalore, but there was only one death; in Secunderabad there were 39 cases, 10 being fatal; and at Kamptee 15, with 3 deaths. The remaining 14 cases, of which 4 were fatal, were spread over eight places. Of the total number of cases, 65, with 9 deaths, occurred in the third quarter of the year; 26, with 4 deaths, in the second quarter; 23, with 2 deaths, in the fourth; and 15, with 3 fatal cases, in the first quarter. With regard to the cases of enteric fever at Bangalore they were equally divided between the north and south station hospitals. The medical officer in charge of the former states that "the etiology of the cases

Madras.

" treated is involved in uncertainty. In the absence of insanitary conditions " the water supply has been supposed to be the chief factor in the causation " of the disease, while the unfavourable report of the Government analyst and " the absence of any adequate protection against pollution of the Ulsoor tank " would appear to favour this contention. Assuming, however, that the water " supply is the typhogenic agent, this hypothesis must be accepted with " reservation when we find officers, men, women, and children, exposed to " the same climate, the same conditions of living, and using water from the " same source exempt from attack. The disease was chiefly confined to " young soldiers between 20 and 25 years of age, and generally under five years " Indian service; indeed, more than half of the men attacked were young " soldiers of a draft recently arrived in the country." The medical officer in charge of the south station hospital states that he has been unable to succeed in connecting any particular case of enteric fever with a definite cause. The barracks were in good condition, latrines clean and properly attended to, the water filtered, and after May boiled before filtration. He alludes to the unsatisfactory condition of the water supply from the Ulsoor tank, and points out that outside barracks certain sanitary defects exist, such as the unsatisfactory manner in which some of the surface drains terminate, as well as the defilement by natives of certain localities; these defects were brought to notice. He mentions also the insanitary manner in which the sewage from the Richmond Town and Shoolay quarters has been discharged, close to the riding school, and remarks that " during the S.W. monsoon the latter is to " leeward of the drain, and it is easy to understand how sewage-contaminated " air may exert a morbific influence on young soldiers under training. Out- " side his barrack the soldier unquestionably is liable to exposure to foul " air, bad water, and suspicious food, and the wonder is that enteric fever has " not been more prevalent." At Secunderabad there were 39 cases and 10 deaths; the medical officers in charge of the station hospitals all state that they were unable to trace the cause of the disease. Every probable source of origin or mode of propagation of the disease was inquired into without result. The sanitary condition of all the buildings and their vicinity was good, the conservancy well regulated, and the food good; while the water supply was excellent. At Kamptee there were 15 cases and 3 deaths; the medical officer in charge states that the cause of the disease is doubtful, and that the only probable cause is the neglect of the men to put dry earth in the latrine pans after using them; that all the cases were admitted in the rainy season, when there is a very damp and close condition of the atmosphere, which produces rapid putrefaction and fermentation.

The Principal Medical Officer quotes the following remarks on the prevalence of enteric fever, from G.O., No. 2,897, Military Department, dated 28th May 1885:—

" No new light has been thrown upon the causation of enteric fever by the experience gained in this Presidency during the past year. The facts referred to in this report point clearly to what is recognised in Europe, that young adults are most liable to this disease, and they seem to show that the causes at work here are much the same as in other countries. It has been said that soldiers are much better cared for in India than at home, and certainly Government does all it can to make their surroundings as perfect as possible, but it is not in the power of Government to prevent them exposing themselves to exactly the same causes as are known to give rise to the disease elsewhere. Much has been done, and is being done, to improve the sanitary state of the native bazars and villages surrounding cantonments, but it must take years before such improvements are carried out. Even in the barracks themselves there are occasionally defects which are difficult to deal with. The reports received from the different executive medical officers show that they are fully alive to the importance of watching closely the sanitary state and surroundings of the soldier. Nothing in the experience of the last few years in Madras seems to prove that the disease obeys any particular epidemic law. The outbreaks take place in those cantonments where the largest number of troops are congregated, and other stations, such as Madras, those on the west coast, and in Burmah, escape nearly altogether."

Simple continued fever and febricula caused 910 admissions; the admission rate, 84·2 per 1,000, is more than double that of the preceding year, and above the five-yearly average by 6·5 per 1,000. These fevers were most prevalent in

Madras.

Burmah, 194·6 per 1,000, the least prevalence being in Nagpore. Compared with the records for the previous year, an increase of prevalence has occurred in all the circles, varying from 123·8 in Burmah to 15·0 per 1,000 in the Hyderabad circle.

Paroxysmal fevers were the cause of 866 admissions, equal to a ratio of 80·1 per 1,000, which differs only by a small fraction from that in the previous year, but is very much less than the average rate of the preceding five years, 204·3 per 1,000. 104 of the cases are returned as remittent fever, the remainder as ague. No deaths occurred. By far the highest rate of prevalence of paroxysmal fevers occurred in the Nagpore circle as compared with other districts, the admission ratio being 517·6 per 1,000; in the previous year also the ratio was high, but it is exceeded by that of the year under report by 150·2 per 1,000. The rate for Burmah, 83·7 per 1,000, also shows a considerable increase, but those of all other circles have declined. In the Eastern and Western districts the rates of prevalence were very low, being 10·1 and 7·6 per 1,000 respectively.

Cholera shows 12 attacks and 10 deaths in the command, and one death in an invalid on ship board on passage home, against 19 cases and 10 deaths in the preceding year. The Principal Medical Officer states that cholera was very prevalent in most of Southern India, and there was a very large mortality among the civil population, the troops therefore escaped very well. Abstract XXVI. gives a table, taken from the report of the Principal Medical Officer, showing the stations at which the admissions and deaths from cholera took place in each of the four quarters of the year. It will be seen that 5 cases, all fatal, occurred in the third quarter, 5 with 4 deaths in the fourth, one fatal in the second, and one, a recovery, in the first quarter. Four of the cases occurred at Bangalore, and three of them died. The disease was prevalent in the neighbourhood, and the medical officer in charge remarks, that 53 cases occurred in the city and cantonment alone. A limited outbreak took place in the military prison on the 2nd October, which speedily subsided on the prisoners being moved into camp. Three fatal, cases of cholera occurred in Madras, the disease being epidemic in the place. It is said that one case was clearly due to the man having visited an infected locality, but the evidence with regard to the other two could not be traced. At Secunderabad two cases and one death occurred; it is stated that both were contracted away from the station. Single cases of cholera occurred at Kamptee, Poonamallee, and St. Thomas' Mount, all were fatal. Of four cases of other diseases of the febrile group, two were due to erysipelas, and one, fatal, to pyæmia.

Diseases of the Constitutional Group.—1,791 admissions and 7 deaths, including 2 of invalids, are returned under this head, being in the respective ratios of 165·6 and ·65 per 1,000. The admission rate corresponds very closely with that of 1883, being only 2·4 per 1,000 in excess, while it is 3·0 per 1,000 below the quinquennial average rate; the mortality shows a decrease in both these comparisons.

Rheumatism caused 340 admissions, of which 33 are returned as rheumatic fever; there were no deaths. The ratio of admission, 31·4 per 1,000, is higher than in the previous year by 7·0, and than the average rate by 1·8 per 1,000. These affections were most prevalent in Burmah, 50·4 per 1,000, and least in the Nagpore circle. In Burmah and the Eastern circle there was an increase of prevalence as compared with 1883, and also in the Hyderabad circle, but there was a decrease in the remainder. Prevalence of rheumatism was increased also a good deal in the depôts, the rate being 56·9 per 1,000.

Primary syphilis caused an admission rate of 101·4 per 1,000, which is a decrease of 8·6 from the rate in the previous year, and one of 4·5 per 1,000 on the average rate. The secondary form of the disease, with a ratio of 25·2 per 1,000, has slightly increased in both these comparisons. Of the different circles the Eastern and the Bangalore circles show the highest rates of prevalence of primary syphilis, 140·2 and 136·6 per 1,000; the lowest 29·1 being in Nagpore. The highest rate for secondary syphilis in any circle was 24·6 in Bangalore, the lowest, 13·1 per 1,000, being in the Western district. The rates for both forms of the disease were high at the depôts. The prevalence of primary disease increased in all districts except Bangalore and Hyderabad, while as to secondary syphilis a decreased prevalence is noticed in the Western, Bangalore, and Nagpore circles, but an increase in the remainder. The rate of prevalence of all forms of venereal disease, including gonorrhœa and its

Madras.

sequelæ, amounted to 260·2 per 1,000, and the rate of constant inefficiency from these affections to 18·38 per 1,000, the former being higher than both the corresponding rate in the preceding year and than the quinquennial average rate, while the latter is fractionally higher than the similar average rate, but lower in the same manner than in 1883.

Tubercular diseases show 59 admissions and 6 deaths, including 2 of invalids. The rate of admission, 5·4 per 1,000, shows no change as compared with the preceding year, but is below the average; as also is the mortality rate ·55 per 1,000 in both cases. These diseases were most prevalent at the depôts and in the districts of Nagpore and Burmah. Of the cases, 47 with 5 deaths, were due to phthisis pulmonalis, and 1 death is returned from scrofula. *Other constitutional diseases* returned 24 cases, 22 being anæmia, 1 general dropsy, and 1 cancer of the rectum, fatal.

Local Diseases.—160 admissions and 10 deaths are recorded from *diseases of the nervous system*, the ratios per 1,000 being 14·8 and ·93 respectively. Compared with the preceding year both show an increase, 3·2 and ·09, but compared with average rates a decline in both is observed of ·6 and ·48 per 1,000 respectively. Nervous affections were more prevalent throughout the command except in the Western and Bangalore districts; the greatest prevalence, 30·3 per 1,000, as well as the greatest increase, being found in the Nagpore circle, while Bangalore had the lowest admission rate. The attacks of sunstroke numbered 15 with 7 deaths, against 5 cases and 3 deaths in the previous year. Six of the cases and 2 deaths occurred at Kamptee, 2 in Madras, 1 fatal, 2 in Bellary, both fatal, and 1 at Bangalore, Cannanore, fatal, St. Thomas's Mount, Sitabuldi, and on the line of march respectively, the last-named being fatal. Among other nervous diseases were 105 cases of some form of neuralgia, 8 of epilepsy, and 20, equal to a ratio of 1·8 per 1,000, of mental disease. A case of hydrophobia, with fatal result, is returned from Malliapooram. The remaining deaths were due to apoplexy, 2 cases.

The rate of admission for *ophthalmic affections* was 12·6 per 1,000, being below the average rate, as well as that of the previous year; most of the cases were conjunctivitis. *Aural diseases* caused an admission rate of 13·7 per 1,000, being more prevalent than usual, but six sevenths of the cases were inflammation of the external meatus.

Diseases of the Circulatory System caused 158 admissions and 2 deaths, one being that of an invalid; the ratio of admission was 14·6 per 1,000, and that of deaths ·19 per 1,000; compared with those of the preceding year the admission rate has declined by 4·2 per 1,000, but there is no change in the death rate, while in comparison with the average rates for the preceding five years the rate of prevalence has decreased by 3·9, and that of mortality by ·59 per 1,000. The highest rate for these affections was in the Eastern division (excluding depôts) and the lowest in Nagpore. Prevalence of these diseases has declined in all the circles except the Eastern and that of Hyderabad. Among the cases were 108 of palpitation and 23 of valve disease of the heart. The deaths were caused by thoracic aneurism and fatty degeneration of the heart respectively.

The admission rate for *diseases of the absorbent system*, 31·8 per 1,000 is lower than that in the previous year by 4·0, but higher than the average rate by 1·4 per 1,000. Out of a total of 344 admissions 320 were caused by affections of inguinal glands not directly traceable to syphilis. The rates in the different circles varied from 47·0 in the Eastern district to 3·6 in Nagpore. With the exception of Bangalore in which there is a slight increase, a decline has occurred in admissions in all the districts.

Diseases of the Respiratory System caused 285 admissions and one death, being in the ratios of 26·4 and ·09 per 1,000 respectively. The rate of prevalence is below the average by 5·7 per 1,000, but it is identical with that of the previous year. These diseases prevailed in all the districts, the rates varying from 38·8 in Burmah to 18·6 per 1,000 in the Bangalore circle. An increase of prevalence occurred in the Eastern and Hyderabad circles, of 11·8 and 9·5 per 1,000 respectively; but a decrease is observed in the remainder; the greatest decrease being 16·0 per 1,000 in the Western, and the least 5 per 1,000 in the Nagpore circle. Of the total number of admissions, 236 were due to bronchial affections, 14 to asthma, 12, with one fatal case, to pneumonia, and 13 to pleurisy.

Madras.

Diseases of the Digestive System caused 2,478 admissions and 30 deaths, including one of an invalid, which are in the ratios of 229·2, and 2·78 per 1,000 respectively. In comparison with the corresponding ratios for the preceding year a slight increase is observed in both, being 8·0 and ·52 per 1,000 respectively, but compared with average similar rates for the previous quinquennial period a decrease of 10·7 per 1,000 is found in the former, and one of ·55 in the latter. With regard to the different districts of the command, the greatest prevalence of these diseases occurred in the Eastern circle, the rate being 325·6 per 1,000, followed by Hyderabad, with 249·8 per 1,000; the lowest rate was 141·8 per 1,000 in Nagpore. The highest mortality was in Hyderabad, at the rate of 4·19 per 1,000, and the rates in the other circles declined from this to *nil* in Bangalore. The rates of prevalence and mortality in the depôts were high. Compared with the records for the preceding year an increase of rate of prevalence, 123·7 per 1,000, occurred in Hyderabad, and to a less extent in the Eastern and Nagpore circles. In Hyderabad also there was an increase of mortality, equal to 3·75 per 1,000, but in all other districts the rates have declined. Among the numerous admissions were 602 for dysentery, with five deaths; 528 for dyspepsia; 452, and one death, for diarrhœa; 440, and 24 deaths, for hepatic affections (including 12 cases and 10 deaths from abscess of the liver), 199 for tonsillitis, and the remainder for various causes.

Abstract XXVII. shows the prevalence of dysentery, diarrhœa, and hepatitis in each of the administrative circles of the command during the year, and Abstract XXVIII. the prevalence and mortality from these diseases in each quarter of the year. From these tables it appears that the admissions for dysentery were in the ratio of 55·7, and the deaths in that of ·37 per 1,000, as compared with 48·3 and ·28 per 1,000 in the previous year. By far the greatest prevalence of the disease, the ratio being 166·8 per 1,000, was in the Eastern district, followed by the Western and Burmah circles, but with much lower rates. With regard to seasonal prevalence the disease was most frequent in in the third and fourth quarters, and least in the second. Diarrhœa gave a ratio of admission of 41·81 per 1,000, being less than in the foregoing year by 1·16. The disease was most prevalent in the Eastern district and in Burmah, and least in Bangalore and was most frequeut in the third quarter of the year, then in the fourth and second, and least in the first. Hepatitis and abscess of the liver were in the ratio of admission of 28·7, and of mortality of 2·13 per 1,000, the former showing a reduction of 2·9, and the latter an increase of ·53 per 1,000, as compared with corresponding rates in 1883. For hepatic disease also the Eastern district shows by far the greatest ratio of frequency, followed by Burmah, 80·6 and 34·4 per 1,000 respectively; the lowest rate was 8·5 per 1,000 in Nagpore, where also occurred the lowest death rate, 1·21, the highest, 4·83, being in the Eastern district. The greatest seasonal prevalence of hepatic affections was in the last quarter of the year, next in the first, and then in the third and second with almost the same rate of frequency.

The admission rate for *diseases of the urinary system* was 147·6 per 1,000 and the death rate ·19 as compared with 118·9 and ·57 per 1,000 in the previous year and 122·6 and ·25 per 1,000 average rates. The rate for gonorrhœa and its sequelæ alone was 133·6 per 1,000, being higher than in 1883 by 20·7, and than the average by 19·0 per 1,000. The greatest prevalence of gonorrhœal affections was in Hyderabad, Nagpore, and the Eastern districts, and there was increased frequency. as compared with the previous year, in every district except the Eastern and Bangalore. Among other diseases of this system two admissions for Bright's disease are recorded, of which one proved fatal in the command; an invalid, after arrival at home, also died of this disease.

Diseases of the Generative System caused an admission rate of 12·8 per 1,000, below the average, but fractionally higher than in 1883. The rate for diseases of the organs of locomotion 6·1 per 1,000, is slightly increased in both these comparisons. Diseases of the cellular tissue give a rate of 17·7 per 1,000, fractionally below the average as well as last year's rate. One death from abscess is returned under this head.

Diseases of the Cutaneous System caused a ratio of admission of 92·3 per 1,000, being an increase of 22·2 on the rate in 1883, and one of 16·1 on the average rate. The increase was general in all the districts except the Western and Bangalore. The admissions were of a very varied character, principally ulcers and boils, and call for no special mention.

Madras.

Debility caused 221 admissions and two deaths, equal to ratios of 20·4 and ·19 per 1,000. The admission rate is about two thirds of the average rate and below that in the previous year by 4 per 1,000.

Poisons.—Under this head are returned 25 admissions and one death, or 2·3 and ·09 per 1,000 respectively. 22 of the admissions were due to alcoholic excess, 15 of the cases, one fatal, were returned as delirium tremens, and 7 as poisoning by alcohol. Of the remaining admissions two were due to poisoned wounds and one to snake bite; in the latter case a man, on the march with his regiment, was one day out shooting, and was bitten in the arm by a rock snake; nitrate of silver was applied to the wound and the case did well.

Injuries.—There were one admission and seven deaths returned under general injuries. The admission was a case of multiple injury, and the deaths were caused as follows:—Two from asphyxia by hanging, one man being executed at Tounghoo for having murdered a comrade, and the other a case of suicide, the man was a prisoner in the military prison Fort Saint George; nothing peculiar in his manner before committing the act had been noticed. The remaining five deaths were due to drowning and were all accidental.

Injuries of a local nature caused an admission rate of 113·6 and a death rate of ·46 per 1,000; the former is above the average rate and that in the foregoing year, but the latter lower than usual. There were, as in other years, very many admissions for contusions, wounds, and sprains, and also 52 cases of fracture, 10 of dislocation, one of cut-throat, self inflicted, two of gunshot wound, self inflicted, all of which recovered, and one case after punishment. Five deaths are returned from the following causes:—One from fracture of the skull—a man, while under influence of drink, fell and struck his head on a stone floor—the other four deaths were caused by gunshot wound of the head and were all suicidal. In one case the man shot himself through the head; it is stated that he was in a melancholy condition of mind, the result of hard drinking; in the second case no motive could be traced and the man's physical and mental health were reported to be good; in the third case the man was labouring under temporary insanity and, having fired two shots from the barrack verandah at some soldiers on the parade ground, blew out his own brains; in the last case it is stated that the man had been taciturn, gloomy, and solitary for some time before commission of the act. One death is returned from injuries received in action; a man of the 1st Battalion Oxfordshire Light Infantry, while in action with Moplahs in the Malabar district, received his death wound from a bullet which took off the upper part of his skull.

Ten surgical operations are recorded, of which five were amputations, one being an amputation of the left fore arm, with successful result, on account of an injury resulting from accidental gunshot wound. The remaining amputations were those of fingers or toes. The other operations were of a minor character, all with satisfactory results.

Invaliding.—350 men were invalided home during the year, and 156 were finally discharged as medically unfit for further service, being in the ratios of 32·37 and 14·43 per 1,000 respectively. Compared with corresponding rates for the previous year, a fractional decrease is observed in the rate of invaliding home, but an increase of 2·94 per 1,000 in that of final discharge; and, in comparison with decennial average rates, a decrease of 7·66 has occurred in the former, and an increase of 1·63 per 1,000 in the latter. The causes necessitating invaliding to England were fevers 3 cases; rheumatism 14 cases, or 1·30 per 1,000; secondary syphilis 22, or 2·03 per 1,000; and tubercular diseases 25 (23 for phthisis pulmonalis) or 2·31 per 1,000. Among local diseases, 29 cases of nervous affections were invalided home, or 2·68 per 1,000; of these 18 or 1·66 per 1,000 were mental diseases; these rates are lower than in the previous year. The rate of invaliding for diseases of the circulatory system was 4·81 per 1,000, about the same as in 1883; of the 52 cases, 20 were for valve disease of the heart, 7 for hypertrophy, and 17 for palpitation. Respiratory diseases caused the invaliding of 15 cases, or 1·38 per 1,000, which is above the average. Diseases of the digestive system necessitated invaliding in 61 instances, the rate being 5·64 per 1,000, which, however, is below the average rate, and that for the previous year. Among the cases were 30 of hepatic affections, including 2 of abscess of the liver and 18 of dysentery. For

Madras.

all other orders of local diseases, the invaliding rates are fractional. Debility caused the invaliding of 87 men, or in the ratio of 8·05 per 1,000, which is an increase on the rate in 1883, and on the average rate. Seven men were invalided for injuries. The principal causes of final discharge as medically unfit for further service were tubercular diseases, 18 cases, or 1·66 per 1,000, being rather below the average rate; diseases of the nervous system, 1·94 per 1,000; diseases of the circulatory system, 3·88 per 1,000; diseases of the digestive system, 1·48 per 1,000; debility, 1·85, and injuries ·83 per 1,000.

Officers.—The average strength during the year was 292; there were 260 cases of illness, 4 deaths, and 25 were invalided home. The ratio of sickness per 1,000 of strength was 890·4, that of death 13·70, and that of invaliding 85·61. Compared with those corresponding in the previous year, these ratios show an increase of 162·0, 4·12, and 2·54 per 1,000 respectively. Enteric fever caused 3 attacks of illness, other continued fevers 49, paroxysmal fevers 27, including 3 cases of remittent fever, and there was one case of cholera, fatal. In addition to these, the principal diseases causing illness were diarrhœa and dysentery 28 cases, hepatic affections 16, with one death from hepatitis, cutaneous affections, debility, and injuries. The remaining two deaths were caused by fracture of the skull, resulting from a fall from a horse, and by opium poisoning, suicidal, respectively. Invaliding was necessary in two cases after enteric fever, five after other fevers; there were also five cases of debility, two of secondary syphilis, and two of hepatitis, and one of phthisis pulmonalis. dyspepsia, dysentery, diarrhœa, hæmorrhoids, synovitis, anæmia, palpitation, and loose cartilage in knee joint respectively.

Women.—The average strength was 887, and the number of admissions to hospital, exclusive of 262 cases of ordinary childbirth, 646, being in the ratio of 728·3 per 1,000, which is a decline of 66·8 from the rate in the previous year. The death rate 11·27 per 1,000 is also lower than that of 1883 by 5·70 per 1,000. The admission rate for febrile affections was 101·3 per 1,000, for diseases of the digestive system, 136·4 per 1,000, and for affections of the generative system, 103·7 per 1,000, all of which are lower than corresponding rates for the previous year, but the ratio for debility, 224·3 per 1,000, is very slightly increased. Among the febrile affections were two cases of small-pox, four of enteric fever, one fatal, five of remittent fever, with one death, and one fatal case of cholera. Phthisis pulmonalis caused four admissions and one death, encephalitis and sunstroke each one fatal case, puerperal mania two cases and one death, dysentery 11 cases and one death, hepatic affections 14, none fatal. The remaining deaths were caused by cancer, angina pectoris, and childbirth, one case respectively.

Children.—In an average strength of 1,784 there were 1,108 admissions into hospital and 56 deaths, being in the ratios of 621·1 and 31·39 per 1,000, which compare favourably with those of the previous year, 723·0 and 45·95 per 1,000 respectively. The ratio of admission for febrile affections was 180·5 per 1,000, for diseases of the respiratory system, 101·5, and for diseases of the digestive system, 165·3 per 1,000; all these ratios are lower than those corresponding in the preceding year. Among the admissions for febrile affections were 18 cases of small-pox, 121 of measles, one of enteric fever, 115 of other continued fevers, and 54 of paroxysmal fevers; no deaths occurred. Cholera caused one admission and diphtheria two, all with fatal result. Whooping cough caused 12 admissions and one death, tubercular affections 9 cases and 7 deaths, convulsions 15 cases and 11 deaths, &c. The causes of death, in addition to those already mentioned, were teething 10, diarrhœa 9, premature birth or debility 8, bronchitis 2, and croup, atelectasis, fissured palate, dysentery, and spinal curvature, one case respectively.

SANITARY CONDITIONS.—The Principal Medical Officer, Surgeon-General J. Irvine, reports as follows :—

The health of the British troops in this command was generally satisfactory during the past year, and seeing that a similar statement was made during each of the previous four years, it may be assumed that the sanitary conditions of their surroundings in the Madras Presidency are on the whole favourable.

Cholera was very prevalent in most of Southern India and there was a very large mortality among the civil population, so that the troops got off wonderfully with only 12 cases and 10 deaths. There was a good deal of small-pox also at several stations, while the troops escaped with 19 cases, most of which were mild, and only one death. *Madras.*

Enteric fever has increased steadily during the last four years, the increase being most marked at Bangalore, where the water supply is always bad, and where it was scanty as well as bad in 1884. It seems probable, therefore, that the quality of the water has something to do with the spread of this disease, but seeing that there were many cases at Secunderabad also, where the water supplied to all the barracks is good, there must be other agencies at work. At all military stations there are several more or less isolated collections of huts occupied by the lowest and poorest classes of the population where filth of all kinds abounds, and the soldier, and especially the young unmarried soldier, is fond of wandering among those in search of prostitutes and drink. There has been no improvement in the number of cases of venereal, and the general impression among medical officers is that the lock hospital system, as worked in this country, has proved of no use whatever to the soldier.

Barracks.—Eastern District.—Formerly one of the drawbacks to living in Fort St. George was the very offensive smell that used to rise from the large main sewer that opened into the sea close to the eastern wall. The contents of this sewer have lately been diverted so that the serious nuisance has been almost entirely removed. The defective construction and ventilation of the ground-floor rooms of the Fort Barracks have often been brought to notice. They are shut off by high buildings from the sea breeze, and indeed from any breeze, and in the hot weather they are not fit places for soldiers to sleep in. Last hot season three cases of heat apoplexy occurred in two of the worst rooms, which were afterwards vacated.

The barracks at Poonamallee are old, badly lighted and ventilated, and, being only 15¾ feet in width, allow only a central free passage of 3 feet wide when the cots are in their proper places.

Bangalore Division and Ceded Districts.—At Bangalore the barracks are all in a good sanitary condition, but some of them are as stated in last year's report, too close to densely populated quarters which are under the municipal authorities and about the sanitation of which frequent complaints are made. Bellary has been favourably reported upon.

Western District.—At the small station of Malliapooram, on the west coast, new barracks are in course of construction in place of those destroyed by fire in 1879, and some were occupied in December.

Hyderabad Subsidiary Force.—The main defects at Secunderabad are the want of trees to check the force of the monsoon winds and of surface drains to carry off the rain water; at present this water percolates into the soil and the foundation of the buildings.

Nagpore Force.—During the year the wash and cook houses, which were to the south-western side of the infantry barracks have been taken down, and the new ones, to the north-eastern side, brought into use. One half of the new family quarters has been converted into the sergeants' mess-room by the removal of the partition walls.

British Burmah Division.—The barracks in this division have been favourably reported on.

Hospitals.—Many of the sewers that opened into the Cooum having been diverted in other directions in recent years, that river is not so offensive as it used to be, and the Station Hospital, Madras, gets better air in consequence. There still remains the drawback of its situation, close to the railway station, and a much used and noisy thoroughfare, whence clouds of red dust are blown into the rooms.

All the hospitals in the Bangalore division are good, except the North Station Hospital at Bangalore itself, which, having been built many years ago, is not up to modern standards. The several blocks are too close together and the sanitary arrangements are imperfect.

At Secunderabad, No. 6 range of the married quarters of the 1st British Infantry Regiment was converted into a general female hospital for the women and children of the two infantry regiments and the Artillery, while No. 7 range was allotted as a contagious disease ward for the same persons.

A new hospital is in course of construction at Tonghoo on an improved site and will probably be open for use early in 1886.

Madras.

Guard Rooms and Cells.—No changes were reported in these buildings throughout the year.

Latrines and Conservancy.—The latrines at Fort St. George are badly ventilated and too far from the barracks, so that men attacked with diarrhœa at night find it difficult to reach them. The latrines at Kamptee were complained of because the soldiers would not take the trouble of using the dry earth, especially at night, and consequently in the damp, muggy weather there was an unpleasant smell about them, and the medical officer in charge of the station hospital thought that men going to them in the early morning might contract the seeds of disease such as enteric. Cinerators were constructed at this station during the year for the destruction of sweepings, &c. of the bazars. This complaint about the men not using the dry earth is not confined to Kamptee.

Baths and Lavatories.—These are, generally speaking, on a liberal scale at all the stations.

Drainage.—The drainage of Bellary is defective in consequence of the dead level of the station. There is a cesspit at each end of the hospital into which its waste water flows and Deputy Surgeon-General Tarrant has recommended that they should be closed and one excavated about 80 yards in rear of the building. His recommendation has been approved of, but the work is delayed for want of funds. The unsatisfactory state of the drainage of the town of Secunderabad was reported on last year and there has been no improvement hitherto in this respect. There is also too much wet cultivation close to the cantonment.

Lighting is by kerosine lamps and has given satisfaction.

Water Supply.—That for the barracks and station hospital, Fort St. George, was obtained as usual from wells about two miles off, being brought by pipes. It was reported on as bad for drinking purposes by the chemical analyist towards the latter part of the year chiefly because of the quantity of albuminoid ammonia present. As cholera appeared in the neighbourhood, it was considered advisable to boil as well as filter it. The year 1884 began in Bangalore with but a scanty supply of water in the tanks from which drinking water is taken, and as only 13·25 inches of rain fell during the first nine months of the year compared with an average of about 26 inches, the supply continued scanty and bad all through the year. It was boiled as well as filtered before issue, but it must be always a source of grave danger. Nothing has yet been done beyond making surveys and elaborating schemes towards improvement in the supply. At Bellary also the water supply was a source of anxiety, the rain fall for the year at that station having been only 7 inches, the average being about 19. The water at Cannanore is obtained from wells and is ordinarily very good, but about the beginning of the south-west moonsoon the water from the too much used wells near the sea contains too much chlorine, as if from percolation of sea water through the laterite. When this is the case the water from these wells is condemned.

Cooking and Rations.—In consequence of the want of water, vegetables were not so good and abundant as usual in Bangalore. At Bellary there is great want of variety in the vegetable ration which is stated to consist of potatoes and onions only. New cook houses for the European regiment at Kamptee were opened during the year. They are built on the Bengal standard plan and serve their purpose well. Fruits and vegetables are fairly abundant at this station, and the administrative officer reports that "no diseases of a scorbutic character occur here." The beef has been reported tough at some stations, but on the whole the quality of the rations has been considered good, and the cooking is such as to please the soldier.

Canteens.—Surgeon-General Madden inspected Port Blair in the Andamans towards the close of the year, and found that two men were in the habit of sleeping in the canteen there. Having represented the matter in the proper quarter, the practice was put a stop to. The beer and porter supplied at Wellington and Bangalore are manufactured on the Nilgiris. They are not liked by the men so well as the English malt liquor, but their quality is improving. A barrack committee have recommended the enlargement of the canteen at Kamptee, and as the alteration will not cost much, there is a prospect of its being made at an early date.

Madras.

Coffee-shops.—These institutions are universally approved of, supplying as they do, a great variety of useful articles at moderate rates.

Clothing has been generally approved of.

Duties and Exercise.—The duties have in no case been reported excessive. Games of various kinds are encouraged as much as possible.

III.—BOMBAY.

Bombay.

The average strength of warrant officers, non-commissioned officers, and men serving in the command during the year was 10,724; there were 15,178 admissions into hospital and 212 deaths, including those of 16 invalids, and 693·90 men were constantly sick. The ratio of admission was, therefore, 1415·3 per 1,000, that of mortality, 19·76, and that of constantly sick 64·70 per 1,000. In comparison with corresponding rates for the preceding year, an increase has occurred in all these ratios, amounting to 192·1 per 1,000 in the case of admission, 7·96 in that of death, and 8·16 per 1,000 in that of constant inefficiency through sickness. Compared, however, with the corresponding average rates for the preceding decennial period, the rate of prevalence of sickness is reduced by 139·2 per 1,000, the death rate is increased by 3·84 per 1,000, and the constantly sick rate by 4·51 per 1,000.

The average sick time for each soldier was 23·68 days, and the average duration of each case of sickness, 16·73 days, the former being longer by 2·95 days, and the latter fractionally shorter than the corresponding period in 1883, and compared with the average length of these periods in the preceding 10 years, the sick time to each man is greater by 1·71 days, and the duration of each case more by 2·55 days. The total loss for the year by death and final discharge of men from the service was 320, equal to a rate of 29·84 per 1,000, an increase of 7·58 per 1,000 on the rate in 1883.

In Abstract No. XXXI. is a table, taken from the report of the Principal Medical Officer, Surgeon-General Grahame Auchinleck, M.D., showing the average strength, admissions, deaths, &c. in the different stations in the command.

On comparison between this table and that for the previous year, it will be observed that at all the stations, except six, an increase of admission rate has occurred, the most marked being at Quetta, where the increase amounts to 1059·3 per 1,000, Hyderabad 830·7, Kolhapur 802·8, Deesa 433·2, Ahmednagar 381·0, and Aden 459·3 per 1,000. Of the stations where a decrease has occurred, the following will be particularly noticed: Satara, with a decline of 682·9 per 1,000, Nasirabad 620·2, and Baroda 318·5 per 1,000. The rates of prevalence at Karachi and Mhow have not materially altered, the difference in the first instance being an increase of 5·1, and in the second a decrease of 2·6 per 1,000. Excluding Sanitaria, the highest admission rate is given by Quetta, 2000·9 per 1,000, followed by Hyderabad with 1970·6, Neemuch with 1965·6, and Mhow with 1805·0 per 1,000. The lowest rate is found in Belgaum, 885·5 per 1,000, Deolalee and Poona being next above, with rates of 1056·6 and 1098·1 per 1,000 respectively. The highest death rate, 46·88 per 1,000, occurred at Baroda (Khundwa being omitted, as the average strength was only two), followed by Quetta 38·14, Hyderabad 32·68, and Deolalee 28·30 per 1,000; the lowest death rate was 3·95 at Belgaum, and 5·02 at Ahmednagar, while at Satara, Kolhapur, Asirgarh, and Indore no deaths occurred.

Comparing the results for the year under report with those of the average of the preceding 10 years, it is observed that, excluding Sanitaria and Khundwa, a decrease of admission rate has occurred in all the stations, except five; in Baroda, the decrease equals 940·3 per 1,000, in Colaba 808·0, and in Poona 522·4 per 1,000. In other stations the decline has not been so great, but still in some cases considerable. Of the stations in which an increase has occurred the greatest is observed at Kolhapur 447·4, Hyderabad 431·0, and Aden 237·3 per 1,000. The rates of mortality have declined in all the stations except six, in four instances to *nil*, in Colaba from 18·06 to 5·11 per 1,000, and in Karachi from 18·87 to 11·56 per 1,000. An

Bombay.

increase of 26·91 per 1,000 occurred at Baroda, one of 23·04 at Hyderabad, 9·05 at Deolalee, and to a slight extent at Kirkee and Nasirabad.

In Abstract XLV. is a table, taken from the report of the Principal Medical Officer, which gives the most important of the health statistics of the different corps which served in the command during the year.

The different arms of the service give the following results:—The ratios of admission in the cavalry, artillery, and infantry were 1341·9, 1420·0, and 1527·9 per 1,000 respectively; compared with the corresponding rates for the preceding year an increase of 10·3 per 1,000 is noticed in that of the cavalry, one of 291·1 in that of the artillery, and one of 209·1 per 1,000 in that of the infantry. The death rate in the cavalry, 4·30 per 1,000, shows a decline of 3·29; that in the artillery 14·13, is however, increased by 8·05, and that in the infantry 13·68 by 3·26 per 1,000. Invaliding decreased in all three arms, the ratio in the cavalry, 36·6 per 1,000, having declined from 43·0 in 1883, that in the artillery 37·4 from 39·5, and that in the infantry 25·9 from 35·34 per 1,000. In all the ratios of constantly sick, on the other hand, there is a slight increase, that in the cavalry, 71·8 per 1,000, being greater by 17·2, that in the artillery, 66·2, by 8·9, and that in the infantry, 69·6 per 1,000, by 9·2 than the corresponding rate in the preceding year. Of the two cavalry regiments which served in the command, the 17th Lancers and the 7th Dragoon Guards, one having relieved the other at Mhow, the latter had the highest rates of sickness and mortality, 1350·1 and 4·58 per 1,000 respectively. In the artillery the highest rates of sickness and mortality of any battery of fair average strength occurred in C Battery, 2nd Brigade, serving 11 months of the year at Hyderabad, having moved from Kirkee; the lowest admission rate, taken in the same way, was in G Battery, 2nd Brigade, at Belgaum; in several batteries the death rate was *nil.* In the infantry the highest rates of sickness and mortality, 2270·8 and 49·11 per 1,000 respectively were in the 2nd Battalion North Staffordshire Regiment, at Quetta, the lowest rate of admission being in 1st Battalion Rifle Brigade, stationed at Belgaum.

The admissions, deaths, invaliding, &c. in the different classes and orders of diseases are shown in Abstract XXX., and the relative prevalence of sickness and mortality from them in each of the administrative circles is given in Abstract XXXII.

GENERAL DISEASES.—Including both groups of this class the admission rate was 648·2, and the death rate 10·62 per 1,000, as compared with 561·0 and 4·83 in the preceding year, and with 979·0 and 6·11 per 1,000 respectively, the average corresponding rates for the preceding five years. The admission rate in the *febrile group* 499·1 per 1,000 is higher than that of 1883 by 62·9, but lower than the quinquennial average rate by 327·2 per 1,000, while the death rate 9·41 per 1,000 is above that for the foregoing year by 6·19, and that for the five years average by 4·86 per 1,000. This increase is chiefly due to the mortality from cholera. The number constantly sick from febrile affections was at the rate of 16·49 per 1,000, which is above the rate in 1883 by 3·11, and below the average rate by 3·61 per 1,000. The highest rates of prevalence and mortality from fevers in any administrative circle were in Quetta, being 814·9 and 17·67 per 1,000 respectively, and the lowest in the Presidency, 260·9 and 3·00 per 1,000. Comparing the rates in the different circles with those of the previous year an increase in rate of prevalence is found in all, except that of Mhow, the greatest increase being in Quetta, 567·2 per 1,000, and the least 55·9 in the Presidency. The rates of mortality also all show an increase with one exception, in the Poona circle, where there is a fractional decrease. The Quetta death rate, 17·67 per 1,000 is very high, and is increased by 13·56 as compared with 1883.

Eruptive fevers caused 15 admissions, 8 on account of small-pox, 6 measles, and 1 chicken-pox. Four of the small-pox cases occurred at Belgaum, where the disease had been prevalent in the district for some time, three at Deolali, and one case, fatal, at Quetta. The measles cases were scattered over various stations.

Continued Fevers.—Enteric fever caused 97 admissions and 22 deaths, being in the ratios of 9·0 and 2·05 per 1,000 as compared with 5·4 and 1·43 per 1,000 respectively in the preceding year. The ratio of mortality to admission was 22·68 per cent., or one death in every 4·5 cases nearly. Of the total number of cases 30 occurred at Quetta, 10 of which were fatal; next 28, with 3 deaths at Karachi; 10 cases, no deaths, at Ahmednagar; 5 cases, 2 deaths at Mhow. At Colaba, Belgaum, Poona, and Nasirabad 4 cases respectively, 1 case fatal at the last three named; at Deesa 3, with 2 deaths; at Baroda and on the march, each 2 cases and 1 death, and 1 case, a recovery, at Neemuch. In Abstract No. XXXIII. will be found a table taken from the report of the Principal Medical Officer, showing the stations at which the admissions and death from enteric fever occurred in each quarter of the year. The first quarter furnished 14 admissions and 1 death, the second 20 admissions and 7 deaths; the third, 46 admissions and 9 deaths, and the last quarter 17 admissions and 5 deaths; the third quarter, as usual, giving the highest number of cases. In a special report on enteric fever amongst the British troops in Bombay during the year 1884, Surgeon-General Grahame Auchinleck speaks of the causation of the disease at the different stations affected. At Quetta, where most cases occurred, not one happened in the first half of the year, but 24 out of the 30 in the third quarter, and about half of the total number of cases occurred in September, in which month remittent fever and other continued fevers were prevalent. Medical officers at the station traced the causation of the disease in different modes, to adulteration of milk, to contaminated water, to the use of impure sand, taken from neighbouring nullahs for the Macnamara filters; and in the opinion of one officer the disease may be occasionally autogenetic. With regard to the cases at Karachi it is stated that 27 occurred in the infantry, of these 22 were admitted from the 1st Battalion Gloucester Regiment between 1st July and 2nd November, the remainder in the regiment from Nasirabad relieving it, which had no enteric fever previous to leaving that station. No cause for the prevalence of the disease could be traced in the barracks or surroundings. It is recommended, however, that a regiment newly arrived from England should not, if possible to avoid it, be sent to Karachi as enteric fever is epidemic there. At Ahmednagar, where 10 cases occurred, the causation is in the greater number of cases attributed to a contaminated milk supply. At Mhow, where 5 cases occurred, no cause for the disease was assigned by any medical officer, but it is suggested that the outbreak might be traced to a pre-existing case which served to introduce the disease. The same remarks are said to apply to Poona, where also no cause was assignable for the outbreak. At Deesa and Nasirabad a contaminated water supply is mentioned as the cause; also in the latter place the insanitary and filthy condition of an old temple near one of the regimental shops. At Baroda one case was attributed to water from a well in the jungle, and another to personal contact. In the other stations where the disease occurred no assignable causes are given for the outbreaks, and there were no facts calling for special notice.

Bombay.

The admission rate for other continued fevers was 112·6 per 1,000, more than double the rate in the preceding year, the increase being as much as 65·0 per 1,000. No deaths occurred in 1883 from these fevers, but nine are returned in the year under report, all recorded as simple continued fever; six of the cases occurred at Kirkee. In all the different administrative circles an increase of admission rate and mortality has occurred; the rate of prevalence was highest in the Sind district, 304·7 per 1,000, being an increase of 206·4 on the rate in the previous year; in the Quetta district the rate was 291·1 per 1,000, an increase of 268·1 per 1,000.

The rate of admissions for *paroxysmal fevers* was 365·2 per 1,000, and that of mortality 1·30 per 1,000 (14 deaths); the rate constantly sick was 10·92 per 1,000. Compared with the corresponding rates for the preceding year a decline of 13·4 is observed in the rate of prevalence, an increase of ·41 in that of mortality, but the constantly sick rate is almost identically the same. In comparison with average similar rates for the previous five years the admission rate for the year under report is very little more than half, the death rate shows a decrease of ·42, and the rate of constant inefficiency one of 5·49 per 1,000; 153 of the total number of admissions, 3,917, and all the deaths were caused by remittent fever, and 32 of the cases and 6 of the deaths occurred at Quetta. The rate of prevalence of malarious fevers is increased in most of the circles; in the Presidency by 9·6, Sind by 94·4, Poona 34·4, and Quetta 286·3 per 1,000, while in Mhow there is a decrease of 247·5 per 1,000, and in Sanitaria one of 116·8 per 1,000. In spite of this large decrease the highest rate of prevalence of these affections is found in the Mhow circle. The highest rate of mortality, 5·58 per 1,000 was at Quetta, the next, 2·00, in the Sind circle, and ·75 in the Presidency.

Bombay.

Cholera caused 66 admissions and 52 deaths, as compared with 15 admissions and 9 deaths in the preceding year. The admission rate was 6·2 and mortality rate to strength 4·85 per 1,000. The per-centage of deaths to attacks reached 78·8 per cent. In Abstract No. XXXIV. is a table, taken from the report of the Principal Medical Officer, showing the stations at which the admissions and deaths took place in each quarter of the year. In the first quarter no case occurred, in the second 2 cases, 1 fatal, at Deolali, and 1 case at Baroda; in the third quarter there were 3 fatal cases at Mhow, 2 cases, 1 fatal, at Neemuch, and 1 fatal case at Nasirabad and on the march respectively; in the last quarter there were 4 admissions and 3 deaths at Deolali, 1 fatal case at Poona, 2 cases, 1 fatal, at Khundwa, and 49 cases with 40 deaths among the troops on the march. Of the latter 48 cases and 39 deaths occurred in the 2nd Battalion, North Staffordshire Regiment, on the march from Quetta to Mhow. The regiment was attacked by the disease in a camp in the Bolan Pass. The cause of the outbreak is said to be very obscure; the water supply was good, being brought from the Bolan river, which at that place was very rapid. There was no history of cholera amongst the natives who resided in the camp or its vicinity, but all the camps in the Pass are said to have been in an insanitary condition. In the Mhow circle cholera was present generally among the civil population, and 9 cases occurred among the European troops, 6 being fatal. At Mhow itself there were 3 cases of cholera, all fatal, in one battery quartered in barracks, "exceptionally well placed, newly constructed, and admirably kept." The disease was prevalent in the neighbouring villages, though there was no case in the bazar. At Neemuch the two cases are said to have been apparently connected with the insanitary state of the bazar. The cases at Khundwa appear to have been contracted in Allahabad in a regiment on its way down country. There is no cause given for the case at Baroda and Nasirabad respectively beyond the prevalence of the disease in the district.

Other febrile diseases caused 49 admissions and 2 deaths; 31 of the cases and both the deaths were due to erysipelas, and there were 6 cases of farcy, these occurred in a battery of artillery at Nasirabad, glanders being prevalent among the horses at the time.

Constitutional group.—Rheumatism caused 291 admissions, of which 71 were of the acute form; no death occurred. The admission rate, 27·1 per 1,000, is below the average rate by 7·7, and is also below the rate in the preceding year. The rate of prevalence of these affections was increased in the Presidency circles, but decreased in the remainder.

The admission rate for *primary syphilis* was 90·1 per 1,000, being greater than that in the previous year by 28·3, and than the average rate of the preceding five years by 7·2 per 1,000. For the secondary affection the rate of admission, 19·0 per 1,000, is lower by 1·0 than that in 1883, and by 3·4 than the average rate. For primary syphilis an increase in rate of prevalence is observed in all the circles of administration, except that of Sind, varying from 53·3 in the Quetta circle to 25·2 per 1,000 in the Presidency. There was also an increase in the Sanitaria. In the Sind circle a decrease of 37·2 per 1,000 took place. The rate of prevalence of secondary syphilis increased in the Sind, Mhow, and Presidency circles, but declined in the Poona and Quetta circles. Including gonorrhœa and its sequelæ the rate of admission for all forms of venereal disease amounted to 257·4 per 1,000, which is higher than the rate in the previous year by 63·5, and than the quinquennial average rate by 38·6 per 1,000. The rate of constant inefficiency on account of these affections was 17·21 per 1,000, which is also greater than the rate in 1883, and than the average rate, in the former instance by 3·68, and the latter by 3·05 per 1,000.

Tubercular diseases caused 87 admissions and 11 deaths, including those of five invalids, being in the ratios of 8·1 and 1·03 per 1,000, as compared with 6·9 and 1·16 respectively in the previous year, and with average rates of 7·2 and 1·21 per 1,000 respectively. All the deaths were due to phthisis pulmonalis. Tubercular diseases have been more prevalent in the Sind, Poona, and Quetta circles, and considerably more in the Sanitaria, but in the Presidency circle less so, while in that of Mhow there was no change from the preceding year.

Bombay.

Nineteen admissions are recorded for scurvy, being at the rate of 1·8 per 1,000, as compared with 1·1 in 1883, and an average rate of 1·3 per 1,000. Most of the cases occurred in the Mhow and Quetta circles.

Thirty-two admissions and two deaths were caused by other constitutional affections, including five cases of cancer, two of diabetes, and one of pyæmia; a death occurred from each of the last two diseases.

LOCAL DISEASES.—*Diseases of the Nervous System* caused 191 admissions and 18 deaths, the rates of prevalence and mortality being 17·8 and 1·68 per 1,000 respectively, the former being higher by 2·5 than the average rate, and by 2·4 than the rate in 1883, while the latter is very slightly decreased in both these comparisons. Among the admissions were 37 for sunstroke, with 11 deaths; seven for meningitis, two fatal; four for apoplexy, all fatal, and one fatal case of encephalitis. 30 admissions are shown for epilepsy, and there were 19 cases of mental affection. There was an increase in prevalence of these affections in the Presidency, Mhow, and Quetta circles, and in the Sanitaria, in Sind the rate of admission is almost the same as in 1883, and in Poona it has slightly declined. Of the cases of sunstroke 11, with three deaths, occurred at Aden, five with four deaths at Hyderabad, four at Ahmedabad, one case fatal; two at Deesa; and single instances at four other stations, also 11 cases among troops on the march.

Diseases of the Eye caused 155 admissions, or 14·5 per 1,000, which rate differs very slightly from the average rate, or that of the previous year. Conjunctivitis, tarsal ophthalmia, and simple forms of ophthalmic disease caused most of the admissions. The rate of prevalence of *diseases of the ear* 10·7 per 1,000, also shows very little variation as compared with the average or last year's rates. Three fourths of the admissions were on account of inflammation of the external meatus. A few admissions for *nasal affections*, principally epistaxis, gave an admission rate of 1·0 per 1,000.

Diseases of the Circulatory System caused 181 admissions and four deaths, being in the ratios of 16·9 and ·37 per 1,000 respectively. The rate of prevalence is reduced by 7·6 as compared with the previous year, but almost identical with the average rate. With regard to the prevalence of these affections in the different circles, a decline is observed in the Poona, Mhow, and Quetta districts, in the Presidency there is only a fractional change, and in Sind a slight increase. A considerable increase is shown for the Sanitaria, where the rate, 51·0 per 1,000, was the highest. More than two thirds of the admissions resulted from palpitation, and among the remainder were 36 cases of valvular disease of the heart, and two of aneurysm of the aorta. Of the deaths two were due to valve disease and two fatty degeneration of the heart.

Diseases of the Absorbent System caused 175 admissions, being in the ratio of 16·3 per 1,000, below the average rate by 3·9, but above last year's rate by 6·5 per 1,000. The rate of prevalence is increased in all the circles, but slightly reduced in the Sanitaria.

Diseases of the Respiratory System give 437 admissions and 16 deaths, including that of an invalid; the ratio of admission being 40·7, and of death 1·49 per 1,000. The rate of prevalence is lower than in the previous year by 2·9, and than the average rate by 11·1 per 1,000. The mortality rate is increased in the former comparison, but there is very little difference in the latter. The rates of prevalence have increased in the Presidency and Mhow circles by 8·9 and 7·6 per 1,000 respectively, but decreased in Sind by 31·3, Poona by 17·7, and Quetta by 10·9, also in the Sanitaria by 9·4 per 1,000. 321 of the cases were bronchial affections, there were 67 cases of pneumonia, 14 being fatal, 19 of pleurisy with one death; and other diseases with smaller numbers. The remaining death occurred in an invalid, from chronic pneumonic phthisis.

Diseases of the Digestive System caused 2,291 admissions, and 32 deaths, including 3 of invalids. The ratio of admission was 213·6 and that of death 2·99 per 1,000. The admission rate is higher than that in 1883 by 31·3, and the death rate by ·93 per 1,000, but compared with average rates the increase of admission rates is only 2·9, while there is a decrease in mortality rate of ·42 per 1,000.

Compared with the returns for the preceding year a decrease has occurred in the Presidency circle, both in admission and mortality rates, of 14·6 and ·21 per 1,000 respectively; in the Sind circle there was a slight decline, 2·8,

Bombay.

in rate of prevalence, but an increase of 1·05 in rate of mortality; in the Poona circle an increase of 28·4 is observed in admission rate and a decrease of ·61 in death rate; in the Mhow circle a decrease of prevalence equal to 8·4 per 1,000 is seen, but an increase of mortality equal to 1·08; in the Quetta circle the increase in both is considerable and amounts to 219·9 and 8·58 per 1,000 respectively; there was also a slight increase of prevalence in the Sanitaria. Among the numerous admissions were 408 for dyspepsia, 495 for diarrhœa, 271 for dysentery, and for hepatic affections 285, including 11 cases of abscess of the liver. The deaths were due to hepatitis, 3 cases, abscess of the liver 8, peritonitis 5, dysentery 10, diarrhœa 2, and jaundice, melæna, tonsillitis, and gastritis one case respectively.

In Abstract No. XXXV. is a table, taken from the report of the Principal Medical Officer, showing the prevalence of dysentery, diarrhœa, and hepatitis in each of the administrative circles; and in Abstract No. XXXVI. a table showing the prevalence of, and mortality from, dysentery, diarrhœa, and hepatitis in each quarter of the year.

The admission rate for dysentery was 25·3, and the death rate ·93 per 1,000, which exceed the ratios for the preceding year by 8·1 and ·39 per 1,000 respectively. Diarrhœa caused a rate of prevalence of 46·2, and a death rate of ·19 per 1,000, the former being an increase of 8·2, while the latter compares with *nil* in the preceding year. Hepatitis and abscess of the liver caused an admission rate of 14·2 and a death rate of ·93, which correspond very closely with the similar ratios in 1883. Comparing the different circles the highest rates of prevalence of dysentery and diarrhœa occurred in the Quetta circle, and the highest rate for hepatitis and abscess of the liver in the Presidency. The highest mortality rates for dysentery and for hepatitis occurred in the Quetta circle, and the highest for diarrhœa in the Poona circle. From the second table it will be observed that the greatest prevalence of dysentery took place in the third and fourth quarters, the rate in both being 8·5 per 1,000; diarrhœa was most prevalent in the third quarter, the rate being 18·4 per 1,000; and the greatest prevalence of hepatitis and liver abscess was in the last quarter, the rate being 5·3 per 1,000.

Diseases of the Urinary System caused an admission rate of 160·2 per 1,000, of which 121·4 per 1,000 was due to gonorrhœa and 26·9 to its sequelæ. The rate for gonorrhœa was higher than that of the previous year by 25·4, and than the average rate by 23·8 per 1,000 and the rate for the sequelæ was increased by 10·9 and 11·0 per 1,000 respectively in both these comparisons. The prevalence of gonorrhœa was increased in all the circles, varying an increase of 43·4 per 1,000 in the Mhow circle to 12·8 in Sind, and 6·6 per 1,000 in the Sanitaria; the rates for sequelæ were also greater in all the administrative districts. Other urinary diseases caused a rate of prevalence of 11·8 per 1,000, being above the average by 2·1, and the previous year's rate by 3·6 per 1,000. Among the cases were 9 of Bright's disease, 2 of nephritis, and 5 of stricture of the urethra. Two deaths occurred, one from pyelitis and the other from extravasation of urine.

The admission rate for *diseases of the generative system* was 9·3 per 1,000, fractionally above the average rate; the cases were of ordinary character. *Diseases of the organs of locomotion* were more prevalent than in the previous year and considerably above the average, the ratio, 8·4 per 1,000, showing an increase of 4·1. A death is returned from mollities ossium. *Diseases of the cellular tissue*, with a ratio of 19·1 per 1,000, are increased as compared with the former year. *Cutaneous affections* were more numerous than usual, the admission rate, 78·0 per 1,000, being above the average by 8·3. The rate of prevalence was increased in all the circles except that of Mhow.

Debility caused 392 admissions, equal to a rate of 36·6 per 1,000, differing only fractionally from the rate in 1883 but below the average rate by 7·2. The rate of admission was lower than in the preceding year in all the circles except Quetta, where there was an increase. The rate in the Sanitaria was also greater. A death is returned from debility and exhaustion.

Poisons.—101 admissions, or 9·4 per 1,000, are recorded, but no death. The rate of admission is above the average by 3·8, and that of last year by 4·4 per 1,000. All the cases but one were due to the abuse of alcohol, and 26 of them are returned as delirium tremens. A large proportion (40) of the

Bombay.

admissions resulting from alcoholic excess occurred at Aden. A case of snake's bite, not fatal, is returned from Quetta.

Injuries.—13 admissions and 13 deaths are returned under the head of general injuries. Seven admissions were caused by lightning stroke at Nasirabad, and there were six deaths from this cause. The lightning struck the roof of a barrack which is supported by iron girders, to which punkah wires are attached; it was conducted along these wires in the upper storey, and killed one man sitting on his cot; it then passed through to the lower storey, and killed five men sitting at a table. Six deaths occurred from drowning; at Colaba and at Hyderabad there was one case respectively, in each the man was attempting to bathe when intoxicated; on the march two men were drowned; and the other two cases occurred at Kirkee and Baroda respectively. A case of multiple injury occurred at Karachi from the explosion of gun cotton at the torpedo works, the man was doing well at the close of the year. A death from asphyxia from plugging of air passages occurred at Mhow. The man was found dead in bed; it appears that he had been drinking, and afterwards, while vomiting, a piece of meat lodged in the trachea. At Ahmednagar there were two cases of attempted suicide by hanging; in one case the man committed the act in the guard room. He stated afterwards that his reason was that the crime which was brought against him, that of trying to shoot a comrade, was preying on his mind. In the other case the man tried to hang himself in a cell with his puggree; he stated that he did it through spite. Three admissions are recorded for burns and scalds.

Local injuries caused 1,202 admissions and 11 deaths, being in the ratios of 112·1 and 1·03 per 1,000, both higher than in the previous year. The admissions were due to very various causes, contusions, sprains, wounds, and fractures being the most frequent. At Kirkee a severe powder accident occurred, injuring 8 men greatly in various ways, and two subsequently died, one from fracture of the thigh and shock from the injury and consequent amputation, and the other from tetanus supervening on compound comminuted fracture of both legs. The men were engaged in filling common shell in a tent when the explosion occurred. The remaining deaths were due to accidental gunshot in two instances, at Ahmedabad and Deesa, and to gunshot, *suicidal* in two instances also; one case at Poona, a lance corporal, 1st Loyal Lancashire Regiment, shot himself while in a state of temporary insanity, and in the other a corporal, North Staffordshire Regiment, shot himself, he had been drinking heavily for some time, and no other cause could be assigned for the act. A death resulting from cut throat, suicidal, occurred at Baroda; the supposed cause of the act was that the man had recently heard of the death of his mother, and it had preyed upon his mind. Four deaths from fracture are recorded, two from fracture of the spine and two from fracture of the skull.

Surgical Operations.—The following are recorded:—An amputation at middle third of the thigh on account of gunshot wound, result unsuccessful; death from exhaustion. Amputations of tarso metatarsus, and of fingers and toes, gave satisfactory results. Excision of the elbow on account of gunshot wound was successful. The following operations were also performed and all gave satisfactory results, ligature of brachial artery, removal of medullary cancer from axilla, removal of tumor, and operation for psoas abscess, one case respectively, as well as fistula in ano and other minor operations.

Invaliding.—The number of men invalided home during the year was 338, and the number of men discharged as unfit for further service 108, being in the ratios of 31·52 and 10·07 per 1,000 respectively. Compared with the corresponding rates in the preceding year, a decrease of 6·12 has taken place in the former, and one of ·39 in the latter, and in comparison with the similar average rates for the previous decennial period, the decrease equals 7·57 and 6·08 per 1,000 respectively. The principal causes of invaliding were febrile affections 17 cases, or at the rate of 1·59 per 1,000, less than half the rate in the preceding year; rheumatism, 14 cases, or 1·30 per 1.000; phthisis pulmonalis 34 cases, or 3·17 per 1,000, an increase on the rate in 1883; 34 for nervous affections, including 12 cases of mental disease; 34 also for diseases of the circulatory system, of which 21 cases were due to palpitation, the rate for each of these orders being 3·17 per 1,000; 45 invalids, or 4·19 per 1,000, were

Bombay.

sent home on account of disorders of the digestive system, principally for hepatic diseases and dysentery, 18 and 17 cases respectively. Debility was the cause of invaliding in 77 instances, or 7·18 per 1,000, being a slight decrease. Injuries caused 18 men to be invalided, or 1·68 per 1,000. Of final discharge of men from the service the following were the chief causes, diseases of the circulatory system in 23 cases, nervous system and debility in 14, injuries in 13, tubercular diseases 11, diseases of the organs of locomotion 8, &c.

Abstract XXXVII. gives a table, taken from the report of the Principal Medical Officer, which shows the comparative mortality and invaliding in the three grades of commissioned officers, non-commissioned officers, and privates for the year under report, and for the 10 previous years. It will be seen that the highest rate of mortality in the three classes is found in the non-commissioned officers in both cases, but the highest invaliding rate among the officers. Compared with the previous year an increase in mortality rates has taken place in all these classes, but invaliding has decreased among the men, while it has increased among the officers and non-commissioned officers.

Officers.—The average strength was 346, the attacks of illness 231, deaths 5, and number invalided 34, being in the ratios of 667·6, 14·45 and 98·26 per 1,000 respectively. The rate of sickness is lower than that in the preceding year by 105·3 per 1,000, but the rate of mortality is higher by 8·55, and that of invaliding by 36·31 per 1,000. Small-pox caused one attack of illness, enteric fever 8, other continued fevers 39, paroxysmal fevers 32, hepatic affections 16, and dysentery 8, &c. The deaths were caused by meningitis, hepatitis, hepatic abscess, fracture of the skull, and gunshot wound of the head (suicidal, while in a state of temporary insanity). The causes of invaliding were febrile affections in 11 instances, debility 10, hepatic diseases 3, nervous affections 2 cases, and various other diseases in single instances.

Women.—The average strength is returned as 652. There were 518 admissions to hospital, excluding 171 for ordinary childbirth, and there were 8 deaths. The rate of admission, 794·5 per 1,000, is higher than that in the preceding year by 50·0 per 1,000, but the mortality rate has declined considerably from 25·08 to 12·25 per 1,000. Among febrile affections 2 cases of small-pox were returned, 2 of enteric fever, 44 of other continued fevers, 52 of paroxysmal fevers, one of cholera, and one of puerperal fever. Of other diseases the following were the principal causes of admission: nervous affections, conjunctivitis, hepatic diseases, uterine disorders, and debility. The deaths were due to continued fever, cholera, pneumonia, diarrhœa, ascites, debility, childbirth, and post-partum hæmorrhage one case respectively.

Children.—The average strength being 1,272, the admissions into hospital 806, and the deaths 69; the ratio of prevalence of sickness was 633·6 per 1,000, and that of mortality 53·46 per 1,000. Both these ratios are higher than those corresponding in the previous year, the former by 109·6, and the latter by 8·13 per 1,000. Febrile diseases caused the following admissions: Chicken-pox 3, measles 44, continued fevers 73, paroxysmal fevers 87, including 11 cases remittent fever, and there were also two cases of cholera. Of the remaining diseases the principal causes of admission were debility, diarrhœa, teething, bronchial affections, conjunctivitis, &c. The causes of death were measles, 8 cases, continued fevers 4, remittent fever 1, anæmia 1, hydrocephalus 2, meningitis 4, sunstroke 1, convulsions 5, bronchitis 6, pneumonia 1, teething 5, sore throat 1, diarrhœa 18, hepatitis 1, tabes mesenterica 3, debility 5, and premature birth, burn, and drowning one respectively.

SANITARY CONDITIONS.—The following remarks are extracted from the report of the Principal Medical Officer.

Colaba.—"It is pointed out that the hospital accommodation is inadequate "to meet any sudden demand to receive a large number of patients, as "occurred during the year under report when a large number of women and "children were landed from H.M.S. "Jumna" with measles.

Belgaum.—"Owing to a representation in last year's report, the poudrette "manufactory was removed from the north-east to a site far enough distant "from the cantonment to prevent any obnoxious smells reaching it. This has "been attended with satisfactory results."

Aden.—"Attention is drawn to the desirability of enlarging the infantry "recreation room at the Crater position. The main hospital bungalow at the

Bombay.

Crater has been put in thorough repair, and is decidedly mproved. The reed hut for the sappers and miners lately put up as a hospital at Steamer Point has been removed to the sappers' lines, as the original position was too much exposed for the treatment of natives.

Poona.—“It is maintained by some, that extensive subsoil drainage is urgently required at Ghorpuri, and that to the absence of this is mainly to be attributed the unusual amount of sickness which prevailed in these barracks in recent years. While fully admitting that improvement might result, it is noted that the particular local cause, if such exists, of the sickness referred to has not been traced with any degree of certainty.

“After being vacant two years the Ghorpuri barracks were re-occupied in November; fevers prevailed at first, the regiment having undergone much exposure to the sun, but after a fortnight the sick list fell rapidly, and remained small till the end of the year.” (Since that time, fevers again became prevalent and it was found necessary to remove the troops.)

Kirkee.—“The construction of stone tanks in which the waste water from the cook rooms and washhouses may be collected until removal has been recommended, so as to avoid swampy ground in the vicinity of the buildings from the overflowing of the present receptacles.

“An experiment has been tried in one barrack, the introduction of subsoil drainage for the washhouses; after three months' trial it apparently acts perfectly.

“The accommodation of the female hospital is stated to be insufficient, and enlargement is recommended, also the construction of isolated wards for infectious cases.

Purandhar.—“It is stated that at this sanitarium cases of debility after fever do better than any other class of cases; hepatic affections and chest diseases do not do well as a rule. Some improvements are required, the surface drainage round the various buildings requires attention. There are neither gutters under the eaves to receive the rain water, nor, with one or two exceptions, are there drains round the buildings to carry it off and present soakage of moisture.

Mhow.—“At this station the following improvements have been carried out:—The swamp near infantry barracks has been efficiently drained. A commencement has been made to remove roof-water from barracks by means of pipes leading down to pucca drains round each building. As an experiment, one well has been deepened and permanently covered in, and a force pump conveys the water to an elevated tank, from which it is removed by metal vessels, after filtration, to the barracks.

“Certain improvements are said to be requisite in the neighbourhood of the wells, so as to prevent pollution of the water supply during the rainy season.

Neemuch.—“The following improvements have been carried out:—The ceilings in the canteens, quarter guard, and No. 1 barracks were renewed. The windows and fanlights over the doors have been fitted with perforated zinc instead of glass. The sergeant's mess, married quarters, and the hospital wards have been provided with perforated zinc doors on the windward side, &c. Laundries have been established for the infantry, artillery, and station hospital.

Nasirabad.—“The following alterations were carried out:—A thatched barrack has been converted into an infectious disease hospital. Two patcherries were converted into a female hospital, and additional male wards provided. New filter beds and a storage tank have been constructed at the north end of the cantonment in connexion with the Danta water supply.

Baroda.—“For some years the barracks at this station have been the subject of frequent reports as to their insanitary condition owing to defective surface drainage, &c. Early in the monsoon of 1884, two blocks had to be vacated and later in the season the others were pronounced unsafe to live in. Accordingly on the 1st October the station was completely vacated by British troops, the majority of the infantry proceeding to Deesa, and the artillery to Ahmedabad.

Sind Circle.—“The sanitary state of all the hospitals is quite satisfactory, and also the lighting. It is desirable that there should be separate wards

Bombay.

for infectious diseases both at Karachi and Hyderabad. The station hospital at Karachi is not quite large enough, and should be extended by an additional building containing one upper and one ground floor ward, and in the corners of the buildings there should be small special wards for lunatics, and cases requiring absolute quietness, &c.

Quetta.—"The general health of the British troops stationed in Quetta during the year was very bad in the latter half. In July the admissions into hospital for febrile complaints began to be very numerous and during the three following months the prevalence was quite of epidemic extent, and the proportion of serious cases simultaneously increased; thus the total admissions for fevers having been 42 in June was 50 in July, 110 in August, 237 in September, and 207 in October, falling to 111 in November. Enteric fever began in July with 4 cases and 1 death, in August the same, in September 16 cases and 3 deaths, in October 6 cases and 2 deaths, and in November none. Intermittents formed the following series, beginning with 23 in June, 19 in July, 59 in August, 88 in September, 161 in October, 105 in November, and 35 in December. Others, as remittent and continued, occurred thus, in June 17, July 26, August 47, September 133, October 39, and November 6. In connexion with the fever figures those of abdominal diseases are worth noting. During April, May, and June 50 cases of diarrhœa and dysentery were admitted, during the next three months 123, and in the last quarter of the year 67. The artillery and infantry were not affected unequally. The strength of the former averaged 166, and the admissions came to 370, and deaths 6. The latter had a strength of 671 with 1,526 admissions and 33 deaths. The epidemic prevalence of sickness in Quetta was not restricted to the military; natives in general were also affected, and at one time trade in the bazar was comparatively suspended, so many of all classes being prostrated. Throughout the whole district the febrile influence was manifested to a remarkable degree."

"The barracks, new and old, were kept in as good order as they could be. The old barracks are merely make-shifts, and will be given up as soon as others are built. The new barracks though excellent have some of them defective floorings, made of a tarry composition, which softens perceptibly in hot weather; a few have brick floors which are more suitable. The latrines are in general kept clean, and new washhouses are in progress. The lighting and warming of the old barracks are bad, owing to the inconvenient plan of the huts. The new barracks are better in both respects, but the fire-places are so designed that proper radiation of heat fails to occur. The ventilation of the new barracks is rather excessive, but will be made controllable; that of the old barracks presents difficulties under existing circumstances of structure.

"The unsuitability of the present hospital huts for the reception of sick is admitted. A new and proper set of buildings on another and more airy site will probably be commenced shortly; and, besides, it is in contemplation to move a portion of the garrison to a sanitarium camp for the early autumn in the higher hills (7,000 feet) a few marches distant from the Quetta Valley.

"Although Quetta is still in a backward condition as regards hospital accommodation for British soldiers, and as to barracks for the artillery, also as regards station roads and other details, it is needless to reiterate complaints. The authorities are, it is believed, fully aware of the sanitary needs of Quetta, and it is hoped that the much required larger share of funds will soon be given for carrying out improvements."

XIII.—ON THE HEALTH OF THE TROOPS SERVING IN EGYPT. *Egypt.*

Sickness and Mortality.

The following report embraces only the sickness and mortality, &c. of the troops stationed in Lower Egypt during the year, and of the small permanent garrison of Suakin (average annual strength, 60) from July to December inclusive. The health statistics of the Eastern Soudan Expeditionary Force in the early part of the year will be found in the report of the Principal Medical Officer published in the Appendix to the Army Medical Department Report for 1882, and those of the Nile Expeditionary Force, in the years 1884–85, are recorded in the report issued in the Appendix to the present volume.

The average strength of warrant officers, non-commissioned officers, and men serving in the Army of Occupation in Lower Egypt during the year was 6,468, as returned by the Principal Medical Officer, Deputy Surgeon-General T. W. Fox, M.B.

The number of admissions to hospital was 8,190, equal to a ratio of 1266·2 per 1,000; the deaths, including that of an invalid, were 75, or 11·59 per 1,000, and the number constantly sick was 497·08, or 76·85 per 1,000. Compared with the corresponding rates for the preceding year, that of admission is increased by 127·2 per 1,000, while that of constantly sick is fractionally greater. The death rate, however, shows a considerable decline, equal to 23·23 per 1,000, but it must be remembered that the country was, in 1883, visited by epidemic cholera. The average sick time to each soldier was 28·05 days, and the average duration of each case of sickness 22·15 days, the former being fractionally longer, and the latter shorter, by 2·23 days than the corresponding period in the previous year.

The following table shows the relative sickness and mortality at the three principal stations in the command:—

Stations.	Average Strength.	Ratios per 1,000.		
		Admissions.	Deaths.	Constantly Sick.
Citadel, Cairo - -	3,342	1259·7	8·38	68·88
Abbasiyeh - -	1,740	1271·8	6·90	73·98
Alexandria - -	1,211	1219·6	18·17	93·59

It will be observed that there is not a very marked difference in admission rate between either of the three stations, but still that Alexandria has the lowest rate, which, with regard to the rates of mortality and constant inefficiency through sickness, Alexandria takes the highest place. The high rate of mortality was principally due to the deaths from enteric fever. Compared with the results in the previous year it is noticed that the ratio of admission has increased in the Citadel Hospital, Cairo, and in Abbasiyeh, but has declined in Alexandria. The death rates in all three cases show a considerable decrease, those of the preceding year having been so greatly augmented by the

Egypt.

epidemic of cholera. The ratios of constantly sick are somewhat higher in Cairo and Abbasiyeh, but that for Alexandria is slightly lower than in 1883.

In Abstract XLII. will be found the more important of the health statistics of the regiments and corps which served in the command during the year.

With regard to the different arms of the service, the highest rates of admission and mortality, 1561·7 and 21·28 per 1,000 respectively, occurred in the Royal Engineers; their average strength, however, was small, being only 235. In the infantry, the ratio of admission equalled 1302·4 per 1,000, as compared with 1180·3 in the previous year; the rate of mortality was 12·63, and that of constantly sick 76·83 per 1,000. The sick rate of the artillery, 1146·3 per 1,000, also shows a small increase, but it is combined with the lowest death rate, 4·93 per 1,000. The cavalry admission rate has increased to 1325·0 from 1217·6 per 1,000; the mortality rate was 10·00, and the rate constantly sick 83·27 per 1,000. The ratio of admission for departmental corps is 771·6, and that of constantly sick 68·12 per 1,000, both showing a decrease; that of mortality was 5·07 per 1,000.

Taking individual corps it is found that the admission ratio of the 19th Hussars, the only cavalry regiment in the command, was 1379·6, and death rate 10·47 per 1,000. In the artillery the highest admission rate, 1392·8 per 1,000, was in the 1st Battery 1st Brigade, but there was no mortality in it. In the infantry the highest admission rate of corps any time in the command was 1897·6 per 1,000 in the Royal Irish Regiment, and the lowest, 762·4 per 1,000, in the 1st Royal Sussex Regiment.

The principal diseases which affected the health of the troops during the year were enteric and other continued fevers, dysentery, diarrhœa, and venereal affections. The admissions and mortality from these as well as from all other classes and orders of diseases are shown in Abstract XXXVIII.

GENERAL DISEASES.—In the *febrile* division of this group of diseases 1,189 admissions are returned, and 33 deaths; being in the annual ratios of 183·8 and 5·10 per 1,000 respectively, which compare favourably with those corresponding in the preceding year, if the sickness and mortality from cholera which then occurred be deducted. In this manner a decrease of 23·0 per 1,000 is observed in the rate of prevalence, and one of 1·74 in that of mortality.

Eruptive fevers caused 30 admissions; 25 were cases of small-pox, of which one was fatal. 16 of the cases occurred in Cairo, where the disease is said to be very common, three cases happened at Abbasiyeh, five at Alexandria, and one at Port Said. The Principal Medical Officer remarks that "the cases "amongst the troops were usually mild, but one was confluent. Vaccina"tion is greatly neglected in this country, and precaution is difficult when "the barracks are so close to low parts of the town." The remaining cases of eruptive fever were four of chicken-pox, and one of scarlet fever occurring in Cairo.

Enteric fever caused 161 admissions and 32 deaths, against 258 admissions and 50 deaths in the preceding year. The admission ratio, 24·9 per 1,000, shows, therefore, a decrease of 7·8 and the mortality rate, 4·95, a decrease of 1·38 per 1,000. The mortality to cases treated was 19·9 per cent., which is fractionally higher than the similar rate in the previous year. It is probable, however, that this per-centage of mortality is too high, as it is believed that the number of admissions for enteric fever do not represent its actual prevalence among the troops, and many cases which are returned under the head of other continued fevers have probably been abortive or insidious cases of enteric fever. If this be so the prevalence of the disease is greater than stated, and the per-centage of mortality to cases treated is over-stated.

The cases of enteric fever were distributed as follows: At the Citadel, Cairo, 60 cases and 13 deaths, being in the ratios of 17·9 and 3·89 per 1,000 of strength respectively; at Abbasiyeh 35 cases and 3 deaths, or at the rate of 20·2 and 1·72 per 1,000; at Alexandria 65 cases and 14 deaths, the rate of prevalence being 53·7 per 1,000, and that of mortality 11·56 per 1,000; there was also one fatal case at Port Said and Suez respectively. The rates of prevalence and mortality were therefore far greater in Alexandria than elsewhere. The mortality among cases treated was almost the same at the

Egypt.

Citadel, Cairo, and at Alexandria, 21·5 per cent., but at Abbasiyeh it only reached 8·6 per cent.

With reference to the prevalence of enteric and continued fevers in Cairo, Surgeon-Major Beattie, medical officer in charge Citadel Hospital, remarks that "the increase in continued fevers in June, coincident with the rise of the " Nile, and their decrease in October, was, as usual, well marked. Many of " the cases were of a very severe character, and in a good many dysentery was " present as a complication. All serious cases were treated in special wards " so as to secure special nursing and dieting. The most successful treatment " consisted in careful nursing and limited milk diet, and those cases did best " in which food and stimulants were given most sparingly. The insanitary " conditions of Cairo are quite enough to account for the presence of enteric " fever, which is perhaps the chief disease amongst the native population. " The worst cases all came from Kasr el Nil barracks, which are situated on " the bank of the Nile."

Brigade-Surgeon Ramsbotham, in charge Ramleh Hospital, Alexandria, speaking of the causation of enteric fever, enumerates the following as amongst the most prominent predisposing causes of the disease: the hot, dry, summer months followed by warm, damp weather when drains and cesspits are most offensive, recent arrival in the country, and, lastly, debility, however induced. He thinks that "the disease must be regarded as endemic in this country, " and while it may be communicated in limited degree by the sick to persons " in health yet this is not the ordinary way in which the disease is communi- " cated. All statistical evidence proves that the prevalence of enteric fever " stands in close relation to the imperfection with which sewage matters are " removed, and when we consider the general absence of underground " drainage and the prevalence of cesspits everywhere beneath the houses in " this country, it is not difficult to understand how, favoured by warmth, " stagnation, and seclusion from open air, fermentation of fœcal matters " ensues, and poisonous effluvia become generated. Out of 65 admissions in " Alexandria district 50 came from Ramleh barracks; the King's Royal " Rifles stationed there, from 20th May to August 13th, furnished 38 cases; " and 12 cases occurred since then in the Yorkshire Regiment. This " localization seems to indicate that it is not to the water supply of the " town that we must look for the causation of the disease, but to other " causes, and the conclusion that is arrived at is that the chief cause to be " assigned for the prevalence of fever in these barracks must be looked for " in the saturation of almost the whole of the soil underneath them by sewage " matter in past years, caused by the cesspits and drains being built with- " out inverts, the bottoms being thus left open, allowing the sewage to " percolate into the soil." Dr. Ramsbotham alludes to the otherwise excellent site of Ramleh barracks close to the sea and exposed to fresh sea breezes for many months in the year; also to the comparative exception of the other buildings at Alexandria, which have been used as barracks. With regard to the cases of enteric fever he points out that "in the majority the " temperature changes have shown great variety, the disease seems to run a " longer course than usual, complications and relapses are more frequent, and " on post-mortem examination it has been found that there is a far greater " tendency for the large intestine to be also involved in the specific ulceration " changes."

Of other continued fevers 709 cases of febricula and 144 of simple continued fever are returned, giving a ratio of admission of 131·9 per 1,000, which has declined from that of the preceding year by 19·7 per 1,000. These fevers were most prevalent in the months from June to October inclusive; after which they are greatly reduced in frequency, and in January, February, and March the cases occurring were very few.

Paroxysmal fevers are returned in 133 instances, being at the rate of 20·6 per 1,000, which is higher than that in the previous year by 3·5 per 1,000. They were most prevalent in the last four months of the year, very few cases occurring at other periods. The Principal Medical Officer states that in most instances the cases of paroxysmal fevers occurred in men who had previously served in malarious stations. Of the total number of cases, 19 were remittent fever and the remainder ague. For other diseases of the febrile group there

Egypt

were 12 admissions, 8 of which were due to erysipelas, and 1 to phagedæna, but no death occurred.

Constitutional Group.—208 admissions are recorded for rheumatism; the rate of prevalence, 32·2 per 1,000, is slightly higher than that in the preceding year; 59 of the cases were of the acute form, but no death occurred, though some of the cases are reported to have been severe and accompanied by cardiac complications. 1,484 admissions were caused by primary syphilis, and 240 by secondary syphilis, being in the ratios of 229·4 and 37·1 per 1,000 respectively; the former being higher than the corresponding rate in 1883 by 39·3, and the latter by 17·2 per 1,000. Including gonorrhea and its sequelæ, the ratio of admission for all forms of venereal disease was 385·4 per 1,000, and the rate of constant inefficiency 26·35 per 1,000, the former showing an increase of 99·5, and the latter one of 4·54 per 1,000 as compared with the return for the preceding year.

Primary syphilis caused the largest number of admissions in all the principal stations. The great majority of the cases, however, are stated to have been of a mild non-infecting type.

The Principal Medical Officer remarks that the arrangements for the supervision of public women in Egypt are very imperfect, and European women are exempt, being under consular laws. It is stated that hereditary syphilis is very common amongst the natives of the country.

Tubercular diseases caused 45 admissions and 2 deaths, 32 of the cases and both the deaths being due to phthisis pulmonalis. The admission rate for tubercular affections was 7·0 per 1,000, below that in the preceding year by 1·6 per 1,000. With regard to phthisis pulmonalis the Principal Medical Officer remarks that "a good many cases have occurred, but although the " Egyptian climate is considered favourable for this affection, it is that of the " desert or of Upper Egypt that is so, and not that of Alexandria and Cairo, " where the insanitary conditions and great variations of temperature are " very trying to health."

Among the remaining cases of constitutional affections were one each of purpura and scurvy, one of diabetes, two of general dropsy, and nine of anæmia; most of the latter occurred in persons who had been suffering from acute disease, and in whom convalescence proceeded very slowly.

LOCAL DISEASES.—The admissions for diseases of the nervous system were 143 in number, and there were 6 deaths, being in the ratios of 22·1 and ·93 per 1,000 respectively, the admission rate being higher, and the death rate lower, than the corresponding rate in the preceding year. Among the cases were 42 of sunstroke, 24 of which, with one death, occurred at Abbasiyeh, 7 at the Citadel, 5 at Alexandria, and 6, with 3 deaths, in the Suakin garrison. The cases at Abbasiyeh are said to have been, in the majority of instances, due to the reckless and imprudent exposure of insufficiently protected heads to the sun, by young soldiers just arrived from home, aided no doubt in some cases by drink. Of the cases of the Citadel four occurred in one day, which was unusually hot, in a regiment marching. The cases treated were usually of a mild character. Among the remaining admissions for nervous affections were 50 for neuralgia, 16 for epilepsy, 8 for paralysis, and 9 for mental disease. A fatal case of tetanus occurred at the Citadel. It supervened in the case of a compound comminuted fracture of the humerus, the result of a fall from the verandah of one of the barracks. A death also occurred at this hospital from thrombosis of the basilar artery. The case was an obscure one. The cerebral symptoms supervened suddenly while the patient was in hospital convalescent from a slight febrile attack.

Diseases of the eye caused 340 admissions, being in the ratio of 52·6 per 1,000, which is higher than that in the previous year by 17·4 per 1,000. However, 310 of the cases, or 90 per cent., were simple conjunctivitis, and only one case of purulent ophthalmia is returned. It is remarked by the medical officer in charge of the Citadel hospital, that eye diseases are said to be less common amongst the natives than they used to be, but they are still very prevalent, and it is almost a wonder that Europeans do not suffer more than they do.

Diseases of the ear caused 69 admissions, or 10·7 per 1,000, the cases were chiefly inflammation of the external meatus, said to be probably due to increased skin action and to chill, to which the natives seem less liable, or they take greater care, commonly wrapping up the head against cold and damp.

Diseases of the circulatory system caused 110 admissions and 3 deaths. The ratio of admission, 17·0 per 1,000, has declined by 2·9 from the rate in 1883. 68 of the cases were due to palpitation, and 18 to valvular disease of the heart, from which also there was one death. The other two deaths were due to fatty degeneration and dilatation of the heart respectively.

Affections of the respiratory system were at the rate of 35·3 per 1,000, which has declined by 17·6 from that in the previous year. Very many of the cases were due to the considerable variation that occurs in the daily temperature, and the liability to chill that follows in consequence. Out of 228 cases 185 were bronchial affections, there were also 21 cases of pneumonia, 2 fatal, and 13 of pleurisy one fatal. The remaining deaths were due to œdema of the glottis and abscess of the larynx one case respectively.

Diseases of the digestive system caused 1,338 admissions and 6 deaths, including that of an invalid. The ratio of admission was therefore 206·9, and that of mortality ·93 per 1,000. Compared with the previous year the prevalence of the affection is slightly increased, by 3·2 per 1,000; but mortality has greatly decreased, the rate in 1883 being 3·04 per 1,000. The principal causes of admission were tonsillitis, dyspepsia, dysentery, diarrhœa, and liver complaints; and especially in the hot months. Diarrhœa caused 290 admissions, in many cases attributable to chills. Dysentery returns 175 cases, or 27·0 per 1,000, and two deaths; as a rule the disease was of a comparatively mild character, and amenable to prompt treatment by ipecacuanha, rest, and milk diet. The disease is said to be common among the natives. Of 171 admissions for hepatic diseases, or 26·4 per 1,000, there were 36 for hepatitis, 28 for simple enlargement, 4 for abscess, with 3 deaths, one for acute atrophy which was fatal, one for cirrhosis, and 101 for jaundice. The latter is said to have been principally of the catarrhal or congestive variety appearing to be induced by chill after having been overheated.

Diseases of the urinary system show an admission rate of 118·9 per 1,000 for gonorrhœa and its sequelæ, which is a good deal higher than that in the previous year. Other urinary affections caused 89 admissions, and 2 deaths, which were due to recto vesical fistula and prostatic abscess respectively; in both cases pyæmia supervened. The first case was due to injury, the man was run over by a mule-cart, sustaining rupture of the bladder and extravasation of urine; he succumbed after a long illness. The ratios of admission for *diseases of the generative system, organs of locomotion, and cellular tissue*, are slightly in excess of those of the previous year but do not demand special mention. *Cutaneous affections* also, with a rate of 79·1 per 1,000, were more numerous, but still "none were specially common, although the "climate is favourable to skin diseases and the natives suffer greatly from "many forms of them."

Debility caused 334 admissions, or 51·6 per 1,000, very slightly higher than the rate in the preceding year. Most of the cases resulted from severe attacks of enteric fever or of dysentery, convalescence being often greatly protracted.

Poisons.—Fourteen admissions are returned, all of them due to the abuse of alcohol, three of the cases were delirium tremens. Two deaths occurred from alcoholic poisoning.

Injuries.—One admission is shown under the head of general injuries, and 3 deaths; 2 of them were cases of drowning in the canals; the third death resulted from multiple injury, the man having been run over by a railway train. 626 instances of local injury are recorded, equal to a rate of prevalence of 98·8 per 1,000. The principal causes of admission were contusions, wounds, sprains, fractures, &c. Eight deaths occurred, and were caused as follows: 1 death resulted from gunshot wound of the abdomen, received when at practice; 1 from a wound of abdomen caused by a stab, supposed to have been inflicted by a native; another from concussion of the brain, caused by a kick from a mule; 1 from rupture of the bladder, resulting from a fall from a barrack-room window, and 1 from fracture of the left leg and right foot by a railway train passing over them. Amputation was performed, but the patient never rallied after the operation. The remaining 3 deaths were suicidal, and

Egypt.

were caused as follows: 2 by gunshot wound, in both cases the men shot themselves with their rifles, and in both cases a verdict of temporary insanity was given at the inquest. The third death was from fracture of the skull, the man, a patient in hospital, jumped out of an upper window after dark; no cause beyond temporary insanity could be discovered, but he had been intemperate. Five deaths are recorded as resulting from wounds received in action; these happened at Suez, and the men had been wounded in the Suakin Expedition in the early part of the year.

The following *surgical operations* were performed: an amputation of the left leg, and subsequently one of right foot, on account of injuries received by a man from a railway train passing over him; death followed the second operation. Another amputation of the leg, on account of a railway injury, did well, and the man was invalided. Two amputations of fingers and one of toes were also successful. Excision of the malar bone, which had been smashed by a kick of a mule, was satisfactorily performed, and the man returned to duty. A case of paracentesis abdominis was successful, but one of tracheotomy, on account of œdema of the glottis in a patient suffering from pneumonia, had a fatal result.

Invaliding.—The number of men invalided home during the year was 320, and of men finally discharged as unfit for further service through illness 165, being in the ratios of 49·47, and 25·51 per 1,000 of the strength. The former shows a decrease of 35·24 per 1,000, as compared with the rate in the preceding year, while the latter shows a slight increase, 3·22 per 1,000 as compared with the rate corresponding to it. Among the principal diseases in which invaliding to England was necessary, were enteric fever 4 cases, rheumatism 11, secondary syphilis 9, phthisis pulmonalis 23, mental disease 14, other nervous affections 4, ophthalmic affections 12, heart disease 25, respiratory diseases 5, dysentery 15, hepatic affections 9, debility 45, and the results of injuries received in action 69 cases. The chief disabilities causing final discharge were phthisis pulmonalis 14 cases, diseases of the nervous system (including 10 cases of mental affection) 17, heart disease 28, respiratory affections 7, digestive disorders 5, debility 10, local injuries 11, and injuries received in action 37 cases.

Officers.—The strength of officers is returned as 236, the attacks of illness 147, the deaths 5, and the number invalided as 25. The ratio of prevalence of sickness was therefore 622·9 per 1,000, that of mortality 21·19, and that of invaliding 105·93 per 1,000. These ratios are all decreased as compared with those corresponding in the preceding year, that of sickness by 256·9, that of mortality by 7·08, and that of invaliding by 84·88 per 1,000. Out of the total number of attacks of illness there were 3 due to enteric fever, all fatal, 43 to other fevers, 2 to sunstroke, 4 to dysentery, 1 case fatal, 9 to hepatic affections, and 10 to debility. The causes of invaliding were enteric fever 2 cases, other fevers 2, hepatic affections 2, debility 7, wounds in action 5, and rheumatism, sunstroke, melancholia, pneumonia, dysentery, diarrhœa, and fracture, one case respectively.

Women and Children.—The strength of the former was only 14, and of the latter 18; 4 women were admitted into hospital and 7 children. One woman died from periostitis, and 1 child from enteric fever and dysentery respectively.

Sanitary Conditions.—The Principal Medical Officer reports that "the general "sanitary condition of the barracks is good, although that of the towns and "country generally is very bad.

"Many improvements in drainage have been made, old drains and cesspits "have been closed or ventilation improved. This is true of all barracks, but "especially of those at Ramleh.

"The accommodation in barracks has been fairly satisfactory, and the cubic "space sufficient. The average space per man was 1,150 cubic feet, and 60 "superficial feet. The hospitals at Cairo, Abbasiyeh, and Ramleh are in "excellent order; there has been no overcrowding, and the cleanliness of the "buildings and their vicinity has been carefully attended to.

"The hospital at Suez was open from the 9th March to 16th May for the "sick and wounded from the Eastern Soudan, and was well reported on; "also that at Port Said for detachments from 1st January to 18th February, "and from 10th June to 2nd December.

"The water supply for the troops at Cairo is Nile water, through the town "waterworks; it is pumped into reservoirs situated between Cairo and Abbasiyeh, where it is filtered through beds of gravel and sand; it is then distributed by means of cast-iron pipes, and is, in addition, carefully filtered in "barracks before use. At Alexandria the supply is from the Nile, through "the Mahmoudieh canal and the waterworks, where it is filtered. It is again "filtered as well as boiled before use; this extra precaution being adopted, "owing to the possible sources of contamination and the prevalence of enteric "fever and dysentery. *Egypt.*

"The means of ablution in barracks and hospitals have been satisfactory, "and the rations and diets have been good and well cooked; the means of "cooking have been satisfactory.

"Gymnasia should be erected if the troops are to remain permanently in "Egypt; in the meantime there are recreations and games, cricket matches, "&c."

Suakin.—Examining separately the statistics of the small force composed of the 17th Company Royal Engineers and a few men of departmental corps quartered at this place during the latter half of the year, it is found that with an average annual strength of 60, there were 184 admissions in the period, 3 deaths, and the number constantly sick 5·07. These figures furnish the following high annual ratios per 1,000: admission, 3666·6; mortality, 50·0; and constantly sick, 84·5. The diseases causing most of the admissions were continued fevers 53 cases, or nearly 29 per cent. of total sick (no case of enteric fever is recorded); diarrhœa 28 cases, and debility 24 cases. The three deaths were due to sunstroke, for which there were 6 admissions. The medical officer in charge remarks in his report that "simple continued fever and febricula have "been the chief diseases, and have been due to the unhealthy climate and to "the effects of sun on men when employed on the engineering works. There "were a good many cases of diarrhœa, probably due to men getting chilled "after free perspiration in many cases. There have been many cases of "general debility, consequent on the enervating nature of the climate. It has "been necessary to send away for change of air no less than 58 cases, a large "proportion compared with the strength. These cases were chiefly febrile or "of general debility, none of which appeared likely to recover in such a climate "as this."

Troops on Board Ship.

XIV.—ON THE HEALTH OF THE TROOPS ON BOARD SHIP.

The troops embarked during the year, as shown in the returns received in the Army Medical Department, were :—

I.	Troops proceeding on service abroad	25,451
II.	Troops returning from abroad	10,392
III.	Troops proceeding from one station abroad to another	11,285
IV.	Invalids returning to England	2,683

I.—TROOPS PROCEEDING ON FOREIGN SERVICE.

The total number of warrant officers, non-commissioned officers, and men embarked for foreign service during the year was 25,451, the equivalent annual strength being 1,495. The admissions into hospital amounted to 1,491, and there were three deaths, giving the respective annual ratios of 997·3 and 2·01 per 1,000.

Compared with the corresponding rates for the previous year, the admission rate shows an increase of 49·1 and the death rate a decrease of 3·03 per 1,000. Compared with the average of similar rates for the preceding 10 years, the admission rate shows an increase of 311·8 and that of mortality a decrease of 2·30 per 1,000 of strength.

The admissions and deaths in the various classes and orders of diseases are shown in Abstract XXXIX.

GENERAL DISEASES.—The *febrile group* caused 42 admissions, equal to a ratio of 28·1 per 1,000, being a decrease of ·71 as compared with that in the year preceding. Eruptive fevers caused 9 admissions. Of these one was a case of small-pox and six were cases of measles. The case of small-pox occurred on board the " Serapis " in a soldier embarked at Gibraltar. He was landed at Port Said and no further case occurred. Of the cases of measles five occurred on board the hired transport " Hankow." The disease appears to have been introduced by an officer's child, who was attacked the day after embarkation at Portsmouth, and was subsequently landed at Queenstown. Enteric fever caused one admission on board the " Malabar." It was of a mild type. Other continued fevers caused 24 admissions, chiefly cases of febricula.

The *constitutional group* of diseases caused 463 admissions and one death, or ratios of 309·7 and ·67 respectively per 1,000 of average annual strength. Compared with the preceding year the admission rate is higher by 24·6 and the death rate less by ·05. Rheumatism caused 39 admissions, of which 18 were of the acute form, one case proving fatal from cardiac complication.

Primary syphilis caused 382 admissions, and secondary syphilis 36, or ratios of 255·5 and 24·1 respectively per 1,000. The former showing an increase of 22·9 and the latter a decrease of 1·1 as compared with the year preceding.

LOCAL DISEASES.—There were six admissions for diseases of the nervous system. Of these only one was a case of sunstroke. One death resulted from meningitis. Ophthalmic affections caused 22 admissions, and diseases of the ear five. Twenty-one of the former were due to conjunctivitis. Of five admissions for diseases of the circulatory system four were due to palpitation, and one to valvular disease of the heart. Diseases of the respiratory system caused 88 admissions. Of these, 50 were due to bronchitis, 34 to pneumonia, and four to pleurisy. Of 130 admissions from diseases of the digestive system 77 were due to tonsillitis, nine to diarrhœa, five to jaundice, and four to hepatitis, the remainder being trivial ailments. The admission ratio for this class, 87 per 1,000 of strength, is less by 21 than in the previous year. 356 admissions were due to gonorrhœa and its sequelæ, giving a ratio of 238·1 per 1,000, which exceeds that of 1883 by 58·8. Diseases of the cutaneous system caused 192 admissions, of which 113 were due to itch, 33 to

Troops on Board Ship.

ulcer, and the remainder to various affections, chiefly boils and warts. One death is recorded from alcoholic poisoning, the deceased having been picked up dead after drinking a large quantity of rum.

Local injuries caused 90 admissions, or a ratio of 60·2, which is less than that of the previous year by 3·2. The chief admission causes were contusions, wounds, and sprains, only three being cases of fracture.

The accommodation provided for the troops was good, and the sanitary condition of the vessels has been generally reported as satisfactory.

II.—TROOPS RETURNING HOME FROM ABROAD.

The number of effective warrant officers, non-commissioned officers, and men who embarked for England was 10,392, the equivalent annual strength being 739. The number of admissions into hospital was 595 and of deaths 11, giving annual ratios of 805·1 and 14·88 respectively per 1,000 of strength, the former showing a decrease of 241·6 and the latter an increase of 1·92 as compared with the preceding year. Compared with the average of similar rates for the previous 10 years, the admission and death rates are both higher.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XXXIX.

GENERAL DISEASES.—The *febrile group* gives 91 admissions and six deaths, or annual ratios of 123·1 and 8·12 respectively per 1,000. Compared with the previous year, the admission rate shows a decrease of 106·8 and the death rate an increase of 2·94. No case of eruptive fever occurred. Of 18 continued fevers admitted only two were enteric. Of the latter, one occurred on board the "Jumna," in a soldier returning from Suakim, and the other on board the "Malabar," on passage from Bombay to Portsmouth. Paroxysmal fevers caused 66 admissions and one death. Of these, 65 were cases of ague and 1 of remittent fever. The latter proved fatal. The admission rate for paroxysmal fevers, 89·3, is less by 78·4 per 1,000 of strength than in the previous year. Malignant cholera caused six admissions and five deaths (exclusive of two admissions and one death among invalids) on board the "Crocodile," on passage from Bombay to Portsmouth in April. The vessel sailed on 3rd April, and is reported to have been overcrowded. On the previous day a non-commissioned officer arrived on board from Deolali, suffering from violent diarrhœa, which he had neglected to report previously. He was greatly exhausted on admission, and died in a few hours. He is stated to have been an old and worn-out man, of intemperate habits, and had been drinking to excess at Deolali prior to proceeding to Bombay. The case, although a suspicious one, was returned as one of diarrhœa associated with debility, but the sanitary precautions adopted were such as would have been practised had the disease been one of cholera. Soon after sailing, diarrhœa became prevalent, the purging in some cases assuming an almost choleraic character. On 6th April the first case of cholera occurred, and proved fatal on 8th. On 10th a second case was admitted, terminating fatally on 11th. On 15th a third case occurred and recovered. On 16th a fourth case occurred and proved fatal on 24th. On 17th the fifth case was reported; it terminated fatally on 18th. On 19th two cases occurred, both proving fatal the following day. On 20th, shortly before reaching Malta, the eighth and last case occurred and recovered. The greater number of the troops on board came from Deolali, but a few embarked direct from Bombay. Cholera did not exist at the former station, but cases of that disease were reported daily in the neighbourhood of Bombay. All the men attacked, except one, came from Deolali. The exception is that of a man of the Medical Staff Corps, who formed one of the permanent staff on board the vessel, but he had been on leave at Bombay the day before the vessel sailed. It is noteworthy that of the eight men attacked five were employed as hospital attendants. Of these latter four came from Deolali, two belonging to the South Wales Borderers, one to the Royal Artillery, and one to the 2nd Hants Regiment. The fifth attendant belonged to the Medical Staff Corps, and formed one of the permanent staff on board. Of the eight men attacked with cholera, four, or one half belonged to the South Wales Borderers, the remainder to the Royal Artillery,

Troops on Board Ship.

Leinster, and Hants regiments, and Medical Staff Corps respectively, each of these corps furnishing one case. The men attacked had been distributed throughout the ship as follows, viz.:—after main troop deck, port side, three; ditto, starboard, one; hospital, one; lower troop deck, port side, two; ditto, starboard side, one. Those who acted as attendants were isolated from the healthy troops immediately they undertook that duty. Of the four men attacked in South Wales Borderers Regiment two had been located on the main troop deck, port side; one on the lower troop deck, port side, and one on the lower troop deck, starboard side. These men had come to Deolali from Madras. Cholera did not exist among the troops at Madras when they left, but the South Wales Borderers had suffered from cholera at Secunderabad in October 1883. Of six men of the Medical Staff Corps embarked at Malta to aid in the nursing of the patients not one was attacked with the disease. The officers and their families, women and children, and ship's company, likewise escaped, but some cases of diarrhœa occurred among the women and children, and two among the latter proved fatal. The medical officer in charge is of opinion that the disease was contracted on passage from Deolali to Bombay, or at the latter station. The vessel is reported to have been in an excellent sanitary condition, and had only a short time before been thoroughly overhauled at Portsmouth. She reached Portsmouth on 30th April, and soon after her passengers were distributed over various stations of the kingdom, and no case of the disease was subsequently reported among them.

The *constitutional group* of diseases caused 144 admissions, but no deaths. The admission ratio, 194·9 per 1,000, showing a decrease of 10·8 as compared with the previous year. Syphilis caused 118 admissions, all but 15 being cases of primary disease. Much of the latter occurred among troops embarked at Cape Town, among whom other venereal affections were also prevalent. The total admission ratio for syphilis was 159·7, against 172·9 in previous year. The remaining admissions recorded in the constitutional group were, with one exception, cases of rheumatic and tubercular diseases.

LOCAL DISEASES.—Of 8 admissions for nervous affections, one was due to paralysis, two to epilepsy, three to neuralgia, one to sunstroke, and one to dementia. The case of sunstroke proved fatal. Of eleven admissions for ophthalmic affections, nine were due to conjunctivitis. Forty-nine admissions for respiratory diseases are recorded. All but one were due to bronchitis. Digestive diseases caused 79 admissions and 2 deaths. The admission ratio equals 106·9 and the death rates 2·71 per 1,000 of strength, the former being less and the latter greater than the corresponding rates in the previous year. One death resulted from diarrhœa and one from hepatitis. Diseases of the urinary system caused 94 admissions, of which 90 were due to gonorrhœa and its sequelæ, the admission ratio for the latter being 121·7 per 1,000. Cutaneous affections caused 41 admissions, of which half were due to ulcers. A fatal case of carbuncle is recorded. The admissions under the remaining orders of local diseases were few and unimportant. One admission was due to delirium tremens and one to alcoholic poisoning. Local injuries caused 34 admissions and 1 death, the chief admission causes being wounds, contusions, and sprains. A death from fracture of the skull occurred on board the "Orontes," the deceased being killed instantaneously while unloading baggage.

The troop ships "Crocodile" and "Serapis," on passage from Bombay to Portsmouth, the former vessel in April and the latter in February, were both reported to have been overcrowded. With these exceptions, the accommodation was reported to be good and the sanitation of the vessels generally satisfactory.

III.—TROOPS PROCEEDING FROM ONE STATION ABROAD TO ANOTHER.

The number of warrant officers, non-commissioned officers, and men who proceeded from one station abroad to another was 11,285, giving the equivalent annual strength of 474. The admissions numbered 319 and the deaths 4. The annual ratio of admission was 672·9 and of mortality 8·44 per 1,000. Compared with the preceding year, the former shows a considerable decrease, and the latter a decided increase. Contrasted with the average rates of the preceding decennial period, the admission ratio shows a reduction of 132·8 and the death rate an increase of 3·60 per 1,000 of strength.

Troops on Board Ship.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XXXIX.

General Diseases.—The *febrile group* gave 99 admissions and 2 deaths, the admission ratio, 208·8 per 1,000, showing a decrease of 9·3 compared with the previous year. The death rate was 4·22. In the previous year there were no deaths. Two cases of enteric fever are recorded, of which one proved fatal. The death occurred on board the "Duke of Devonshire" on passage from Gibraltar to Alexandria, the disease having been contracted at the former station. The second case of this disease occurred on board the "Orontes" on passage from Suakim to Alexandria, the disease being contracted prior to embarkation. Eight admissions are recorded for simple continued and three for remittent fever, four for febricula, and 82 for ague. The fatal case of remittent fever occurred on board the "Hankow" proceeding with troops from Bombay to Suez for service in Egypt.

The *constitutional group* of diseases caused 58 admissions, of which 51 were due to syphilis and 7 to acute rheumatism. A large proportion of the syphilitic affections occurred in troops proceeding from Bombay to Suez and from Barbadoes to Cape Town. The admission ratio for syphilis is less than in the previous year by 73·5 per 1,000 of strength.

Local Diseases.—Diseases of the nervous system show 1 admission only, neuralgia. The eye affections treated were all cases of conjunctivitis. Of 5 diseases of the respiratory system, 2 were cases of bronchitis, 1 of asthma, 1 of pneumonia, and 1 of pleurisy. Digestive diseases caused 35 admissions and 2 deaths. Of the former, 5 were cases of dyspepsia, 7 of dysentery, 11 of diarrhœa, 5 of hepatitis, and 3 of jaundice. Both deaths were due to dysentery. Gonorrhœa caused 51 admissions. A large proportion of the cutaneous affections admitted was due to ulcers and boils. The remaining orders of local diseases caused but few admissions. Three admissions are recorded under "debility" and 21 under "local injuries," the latter, with the exception of one case of fracture, being unimportant.

The accommodation provided and the sanitary condition of the vessels were reported to be generally satisfactory. Slight overcrowding occurred on board the "Taymouth Castle" on the passage from Durban to Cape Town, but it was unattended with any bad results.

IV.—Invalids returning to England.

The number of invalids embarked for England from foreign stations during the year was 2,683, among whom 17 deaths occurred at sea. These are accounted for in the tables showing the sickness and mortality of the Commands from which the men were invalided. 61 invalids from Egypt, suffering from "wounds received in action," are included among the invalids of 1884.

ABSTRACT No. I.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into serving in the UNITED KINGDOM during the Year 1884, with the Ratios

Orders.	Average Strength in Annual Returns, 83,135. †Average Strength, including Men detached, 86,013. Diseases.	Admissions into Hospital.	Died.			Invalids Discharged the Service.	Average Number constantly Sick.
			With the Regiment.	Absent from the Regiment.	Total.		
	I.—*General Diseases.*						
	Febrile Group.						
	Eruptive Fevers { Small-pox	10	—	—	—	—	1·56
	Eruptive Fevers { Other -	464	—	1	1	—	27·62
	Continued „ { Enteric -	89	16	1	17	—	12·03
	Continued „ { Other -	1,034	1	—	1	—	32·12
	Yellow Fever - - -	—	—	—	—	—	—
	Paroxysmal Fevers - -	462	1	—	1	3	15·95
	Cholera - - -	1	—	—	—	—	·03
	Other diseases - - -	519	10	—	10	—	23·41
	Total - - -	2,579	28	2	30	3	112·72
	Constitutional Group.						
	Rheumatism - - -	3,347	6	1	7	85	213·22
	Primary Syphilis - -	10,410	—	—	—	1	890·67
	Secondary „ - -	2,508	—	1	1	39	202·33
	Tubercular Diseases - -	624	140	14	154	285	94·15
	Scurvy and Purpura - -	21	1	—	1	—	1·38
	Other diseases - - -	81	10	—	10	5	6·20
	Total - - -	16,991	157	16	173	365	1407·95
	II.—*Local Diseases.*						
	Diseases of the—						
1	Nervous System - -	887	40	1	41	286	95·68
2	Eye - - - - -	1,221	—	—	—	66	66·23
3	Ear - - - - -	499	—	—	—	48	31·32
4	Nose - - - - -	44	—	—	—	—	2·91
5	Circulatory System - -	934	32	1	33	347	90·27
6	Absorbent „ - -	1,192	—	—	—	7	106·13
7	Ductless Glands - -	5	—	—	—	1	·42
8	Respiratory System - -	4,949	73	5	78	69	254·55
9	Digestive „ - -	9,806	34	3	37	161	308·52
10	Urinary System { Gonorrhœa - -	8,762	—	—	—	—	527·77
	Urinary System { Sequelæ of Gonorr. -	830	—	—	—	6	53·54
	Urinary System { Other diseases -	1,170	8	—	8	48	55·54
11	Generative System - -	759	—	—	—	10	38·98
12	Organs of Locomotion - -	515	—	—	—	98	42·55
13	Cellular Tissue - -	2,235	—	—	—	7	92·63
14	Cutaneous System - -	8,433	—	—	—	27	311·84
	III.—*Debility* -	807	—	—	—	161	63·80
	IV.—*Poisons* - -	222	10	—	10	1	5·87
	V.—*Injuries.*						
1	General - - -	7	24	1	25	2	1·58
2	Local - - - -	9,263	22	—	22	87	380·34
3	In action - - -	—	—	—	—	2	—
	No appreciable disease -	234	—	—	—	—	8·00
	Cause unknown (refers to deaths only).	—	2	—	2	—	—
	General total - -	72,344	430	29	459	1,797	4059·14

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* The average ratios for 10 years will be given in future years. The average

† Ratios of deaths and invalids calculated on this strength.

Hospital, Deaths, Numbers Invalided and Constantly Sick among the Troops per 1,000 of the Strength and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·1	—	—	·02	·1	·01	—	·01
5·6	·01	—	·33	5·6	·06	—	·27
1·1	·19	—	·14	1·4	·18	—	·16
12·4	·01	—	·39	14·0	·14	—	·43
—	—	—	—	—	—	—	—
5·6	·01	·04	·19	13·6	·01	·04	·46
—	—	—	—	—	—	—	—
6·2	·12	—	·28	8·3	·08	—	·31
31·0	·34	·04	1·85	43·0	·48	·04	1·64
40·3	·08	·99	2·56	40·4	·07	1·34	2·43
125·2	—	·01	10·72	96·0	—	—	7·35
30·1	·01	·45	2·43	29·3	·02	·61	2·28
7·5	1·79	2·73	1·13	10·1	2·14	4·01	1·37
·2	·01	—	·02	·2	—	—	·02
1·0	·12	·06	·07	1·4	·08	·15	·13
204·3	2·01	4·24	16·93	177·4	2·32	6·11	13·58
10·7	·48	3·33	1·15	12·1	·46	2·68	1·19
14·7	—	·77	·80	14·7	—	·83	·82
6·0	—	·50	·38	5·6	—	·59	·37
·5	—	—	·04	·5	—	·02	·02
11·2	·38	4·04	1·09	14·3	·72	4·43	1·33
14·3	—	·08	1·28	12·4	·01	·04	1·03
·1	—	·01	—	·1	—	·02	—
59·5	·91	·80	3·06	74·6	1·38	1·21	3·76
118·0	·48	1·87	3·71	109·8	·50	2·07	3·79
105·4	—	—	6·35	99·3	—	—	5·63
10·0	—	·07	·64	11·1	—	·07	·71
14·1	·09	·56	·67	12·3	·16	·46	·59
9·1	—	·12	·47	11·1	—	·18	·56
6·2	—	1·14	·51	6·5	·06	1·21	·57
26·9	—	·08	1·11	23·8	·01	·09	1·04
101·5	—	·31	3·75	111·6	—	·34	4·20
9·7	—	1·87	·77	10·8	·01	—	·80
2·7	·12	·01	·07	2·1	·11	2·08	·07
·1	·29	·02	·02	·1	·44	·01	·02
111·4	·26	1·01	4·57	105·8	·32	·86	4·25
—	—	·02	—	·1	—	·05	·01
2·8	—	—	·10	3·1	—	—	·10
—	·02	—	—	—	·03	—	—
370·2	5·33	20·89	48·82	861·7	7·01	23·39	46·08

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT A.—Table showing the Average Strength, Admissions into Hospital, the Northern District during the Year 1884, with the Ratios

Orders.	Average Strength, 9,618.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox	3	—	—	·20
	Eruptive Fevers { Other	28	—	—	1·04
	Continued „ { Enteric	11	2	—	1·19
	Continued „ { Other	187	—	—	4·99
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	46	—	—	1·04
	Cholera	—	—	—	—
	Other diseases	47	—	—	1·98
	Total	322	2	—	10·44
	Constitutional Group.				
	Rheumatism	428	1*	10	20·70
	Primary Syphilis	1,209	—	—	85·00
	Secondary „	361	—	4	24·12
	Tubercular Diseases	75	20	24	9·57
	Scurvy and Purpura	1	—	—	·02
	Other diseases	11	—	—	·54
	Total	2,085	21	38	137·95
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	95	4	23	8·68
2	Eye	140	—	5	5·92
3	Ear	37	—	2	2·52
4	Nose	3	—	—	·26
5	Circulatory System	107	7	34	8·33
6	Absorbent „	153	—	—	13·50
7	Ductless Glands	—	—	—	—
8	Respiratory System	582	14	7	24·40
9	Digestive „	1,089	7	19	29·28
10	Urinary System { Gonorrhœa	1,268	—	—	65·56
	Urinary System { Sequelæ of Gonorrhœa	112	—	—	7·90
	Urinary System { Other diseases	148	2	5	5·62
11	Generative System	123	—	2	4·61
12	Organs of Locomotion	66	—	12	5·42
13	Cellular Tissue	322	—	2	11·76
14	Cutaneous System	1,067	—	2	37·61
	III.—*Debility*	91	—	16	5·98
	IV.—*Poisons*	21	3	1	·52
	V.—*Injuries.*				
1	General	1	2	—	—
2	Local	1,274	2	10	41·54
3	In action	—	—	—	—
	No appreciable disease	33	—	—	1·53
	Cause unknown (refers to deaths only)	—	1	—	—
	General total	9,139	65	178	429·33

* The average ratios for 10 years will be given in future years. The average

Deaths, Numbers Invalided and Constantly Sick among the Troops stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000, from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·3	—	—	·02	—	—	—	—
2·9	—	—	·11	2·9	·02	—	·12
1·1	·21	—	·12	·9	·19	—	·11
19·4	—	—	·52	13·7	·05	—	·28
—	—	—	—	—	—	—	—
4·8	—	—	·11	13·6	—	—	·44
—	—	—	—	—	—	—	—
4·9	—	—	·21	6·0	·02	—	·18
33·4	·21	—	1·09	37·1	·28	—	1·18
44·5	·10	1·04	2·15	41·9	·10	1·53	2·38
125·7	—	—	8·63	116·4	—	—	9·23
37·5	—	·41	2·50	34·6	·05	1·07	2·58
7·8	2·08	2·50	·99	11·9	2·89	4·20	1·65
·1	—	—	·02	·1	—	—	·06
1·1	—	—	·05	1·6	·05	·48	·22
216·7	2·18	3·95	14·34	206·5	3·09	7·28	16·12
9·9	·42	2·39	·90	12·6	·50	2·89	1·18
14·5	—	·52	·62	12·0	—	·81	·57
3·8	—	·21	·26	3·4	—	·50	·21
·3	—	—	·03	·5	—	·02	·03
11·1	·78	3·58	·87	12·3	·88	4·61	1·00
15·9	—	—	1·40	13·6	—	·14	1·15
—	—	—	—	—	—	—	—
60·5	1·46	·73	2·54	74·9	1·93	1·62	3·73
113·2	·73	1·97	3·04	99·8	·45	2·74	3·27
131·8	—	—	6·82	124·0	—	—	6·59
11·6	—	—	·82	16·1	—	—	1·03
15·7	·21	·52	·58	11·6	·26	·53	·52
12·8	—	·21	·48	12·0	—	·31	·58
6·9	—	1·25	·56	6·3	·05	1·17	·48
33·5	—	·21	1·22	26·7	·02	·14	1·13
110·9	—	·21	3·91	134·7	—	·62	4·43
9·5	—	1·66	·62	10·5	·02	2·01	·65
2·2	·31	·10	·05	2·3	·14	—	·06
·1	·21	—	—	·2	·49	·02	·01
132·5	·21	1·04	4·32	115·8	·43	1·29	4·24
—	—	—	—	—	—	—	—
3·4	—	—	·16	2·1	—	—	·08
—	·10	—	—	—	·02	—	—
950·2	6·76	18·50	44·63	935·0	8·56	26·70	48·19

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT B.—Table showing the Average Strength, Admissions into Hospital, the Eastern District during the Year 1884, with the Ratios

Orders.	Average Strength, 4,369.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	Diseases.				
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	48	—	—	2·00
	Continued „ { Enteric	1	—	—	·21
	Continued „ { Other	33	—	—	1·00
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	12	—	—	·40
	Cholera	—	—	—	—
	Other diseases	16	—	—	1·18
	Total	110	—	—	4·79
	Constitutional Group.				
	Rheumatism	248	—	2	14·78
	Primary Syphilis	599	—	—	47·98
	Secondary „	125	—	—	10·11
	Tubercular Diseases	31	10	4	4·32
	Scurvy and Purpura	—	—	—	·02
	Other diseases	3	1	—	·25
	Total	1,006	11	6	77·46
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	52	2	11	4·32
2	Eye	70	—	1	4·22
3	Ear	24	—	1	1·42
4	Nose	7	—	—	·66
5	Circulatory System	58	2	17	3·81
6	Absorbent „	62	—	—	4·15
7	Ductless Glands	—	—	—	—
8	Respiratory System	316	—	3	12·94
9	Digestive „	698	—	15	20·64
10	Urinary System { Gonorrhœa	477	—	—	28·86
	Urinary System { Sequelæ of Gonorrhœa	30	—	—	1·92
	Urinary System { Other diseases	44	—	2	1·87
11	Generative System	50	—	—	2·87
12	Organs of Locomotion	22	—	4	1·32
13	Cellular Tissue	108	—	—	3·86
14	Cutaneous System	626	—	—	21·91
	III.—Debility	34	—	6	2·26
	IV.—Poisons	3	—	—	·05
	V.—Injuries.				
1	General	—	—	—	—
2	Local	467	—	9	19·58
3	In action	—	—	—	—
	No appreciable disease	13	—	—	·52
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	4,272	15	75	219·43

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* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
11·0	—	—	·45	7·7	—	—	·25
·2	—	—	·05	·7	·19	—	·06
7·5	—	—	·23	12·5	—	—	·26
—	—	—	—	—	—	—	—
2·7	—	—	·09	20·7	—	·05	·59
—	—	—	—	—	—	—	—
3·7	—	—	·27	6·6	·09	—	·35
25·1	—	—	1·09	48·2	·28	·05	1·51
56·7	—	·46	3·38	45·7	—	1·87	2·74
137·1	—	—	10·98	88·5	—	—	6·17
28·6	—	—	2·31	24·5	—	·33	2·08
7·1	2·28	·91	·99	11·6	2·06	4·55	1·28
—	—	—	·01	·2	—	·05	·02
·7	·23	—	·06	1·4	·14	·24	·29
230·2	2·51	1·37	17·73	171·9	2·20	7·04	12·58
11·9	·46	2·51	·99	12·9	·53	3·26	1·23
16·0	—	·23	·97	18·4	—	·82	·95
5·5	—	·23	·33	5·5	—	·53	·42
1·6	—	—	·15	·6	—	—	·03
12·1	·46	8·89	·87	15·5	·86	4·07	1·14
14·2	—	—	·95	14·8	—	·05	1·04
—	—	—	—	—	—	—	—
72·3	—	·69	2·96	87·5	1·96	·76	3·95
159·8	—	3·43	4·72	126·1	·53	2·63	3·96
109·2	—	—	6·61	105·3	—	—	5·08
6·9	—	—	·44	12·6	·05	—	·75
10·1	—	·46	·43	9·1	·14	·19	·62
11·5	—	—	·66	14·4	—	·05	·78
5·0	—	·91	·30	5·7	·05	1·24	·52
24·7	—	—	·88	25·1	·05	·05	1·10
143·3	—	—	5·01	110·3	—	·38	3·68
7·8	—	1·37	·52	13·9	—	3·88	·94
·7	—	—	·01	3·3	·05	—	·06
—	—	—	—	·1	·28	—	—
106·9	—	2·06	4·48	106·6	·19	·96	4·17
—	—	—	—	—	—	—	—
3·0	—	—	·12	1·8	—	—	·09
—	—	—	—	—	—	—	—
977·8	3·43	17·16	50·22	909·6	7·17	25·96	44·60

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT C.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL,
the WESTERN DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 5,041. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers - Small-pox -	1	—	—	·16
	Eruptive Fevers - Other -	13	—	—	·79
	Continued „ - Enteric -	6	4	—	·39
	Continued „ - Other -	51	—	—	2·35
	Yellow Fever - - - -	—	—	—	—
	Paroxysmal Fevers - - -	25	—	—	1·25
	Cholera - - - -	—	—	—	—
	Other diseases - - -	37	—	—	1·53
	Total - - -	133	4	—	6·47
	Constitutional Group.				
	Rheumatism - - - -	143	1	—	9·73
	Primary Syphilis - - -	514	—	—	45·17
	Secondary „ - - -	115	—	—	10·91
	Tubercular Diseases - - -	50	18	15	10·00
	Scurvy and Purpura - - -	2	—	—	·04
	Other diseases - - -	—	—	—	—
	Total - - -	824	19	15	75·85
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System - - -	65	1	21	8·41
2	Eye - - - - -	63	—	3	3·86
3	Ear - - - - -	30	—	2	1·76
4	Nose - - - - -	1	—	—	·11
5	Circulatory System - - -	40	1	9	5·49
6	Absorbent „ - - -	57	—	—	5·80
7	Ductless Glands - - -	—	—	—	—
8	Respiratory System - - -	256	6	4	16·84
9	Digestive „ - - -	515	1	7	19·24
10	Urinary System - Gonorrhœa - -	502	—	—	32·23
	Urinary System - Sequelæ of Gonorrhœa -	34	—	—	1·60
	Urinary System - Other diseases -	67	1	4	5·82
11	Generative System - - -	65	—	—	3·41
12	Organs of Locomotion - -	24	—	5	2·76
13	Cellular Tissue - - -	115	—	1	5·89
14	Cutaneous System - - -	482	—	—	18·00
	III.—*Debility* - -	47	—	8	4·57
	IV.—*Poisons* - -	23	—	—	·55
	V.—*Injuries.*				
1	General - - - -	—	6	—	—
2	Local - - - - -	497	2	4	21·65
3	In action - - - -	—	—	—	—
	No appreciable disease - -	16	—	—	·36
	Cause unknown (refers to deaths only)	—	—	—	—
	General total -	3,856	41	83	240·67

* he average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
per 1,000 of the Strength and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000, from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·2	—	—	·03	·0	—	—	—
2·6	—	—	·16	5·6	—	—	·22
1·2	·79	—	·08	·9	·29	—	·09
10·1	—	—	·47	11·6	·08	—	·41
—	—	—	—	—	—	—	—
5·0	—	—	·25	11·7	—	—	·51
—	—	—	—	—	—	—	—
7·3	—	—	·30	5·4	—	—	·20
26·4	·79	—	1·29	35·2	·37	—	1·43
28·4	·20	—	1·93	37·0	—	1·80	2·60
102·0	—	—	8·96	75·9	—	—	6·41
22·8	—	—	2·17	24·9	·04	·57	2·20
9·9	3·57	2·98	1·98	10·1	2·04	4·05	1·66
·4	—	—	·01	·1	—	—	·01
—	—	—	—	·7	·12	·08	·06
163·5	3·77	2·98	15·05	148·7	2·20	6·50	12·94
12·9	·20	4·17	1·67	12·7	·41	2·78	1·18
12·5	—	·59	·76	12·3	—	1·10	·88
5·9	—	·40	·35	4·9	—	·61	·34
·2	—	—	·02	·6	—	—	·03
7·9	·20	1·79	1·07	13·1	·98	3·64	1·41
11·3	—	—	1·15	9·9	—	—	·82
—	—	—	—	—	—	—	—
50·8	1·19	·79	3·34	59·9	·90	·86	3·19
102·2	·20	1·39	3·82	100·1	·45	2·58	3·74
99·6	—	—	6·39	123·8	—	—	7·23
6·7	—	—	·32	9·5	—	·16	·57
13·3	·20	·79	1·15	13·6	·12	·41	·72
12·9	—	—	·68	11·1	—	·12	·61
4·8	—	·99	·55	7·2	·04	·94	·67
22·8	—	·20	1·17	19·4	—	—	·93
95·6	—	—	3·57	103·5	—	·25	3·41
9·3	—	1·59	·91	8·0	—	1·47	·95
4·5	—	—	·11	1·8	·12	—	·07
—	1·19	—	—	·1	·33	—	·03
98·6	·40	·79	4·30	84·7	·17	·69	3·67
—	—	—	—	·0	—	·08	·02
3·2	—	—	·07	3·2	—	—	·07
—	—	—	—	—	—	—	—
764·9	8·13	16·47	47·74	783·3	6·09	22·14	44·91

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT D.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the SOUTHERN DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 7,855. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers - Small-pox -	3	—	—	·58
	Eruptive Fevers - Other -	50	—	—	4·42
	Continued „ - Enteric -	3	1	—	1·05
	Continued „ - Other -	79	—	—	2·28
	Yellow Fever - - - -	—	—	—	—
	Paroxysmal Fevers - - -	92	1	—	2·63
	Cholera - - - -	—	—	—	—
	Other diseases - - -	26	2	—	·95
	Total - - -	253	4	—	11·91
	Constitutional Group.				
	Rheumatism - - - -	369	—	12	27·20
	Primary Syphilis - - -	799	—	—	59·16
	Secondary „ - - -	158	—	2	11·95
	Tubercular Diseases - - -	59	15	24	14·59
	Scurvy and Purpura - - -	2	—	—	·38
	Other diseases - - -	4	2	—	·18
	Total - - -	1,391	17	38	113·46
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System - - -	86	3	20	8·64
2	Eye - - - - -	138	—	7	7·68
3	Ear - - - - -	68	—	6	3·83
4	Nose - - - - -	6	—	—	·22
5	Circulatory System - - -	123	2	43	12·71
6	Absorbent „ - - -	104	—	—	8·32
7	Ductless Glands - - -	1	—	—	·03
8	Respiratory System - - -	465	4	4	23·66
9	Digestive „ - - -	1,220	2	18	35·44
10	Urinary System - Gonorrhœa - - -	840	—	—	45·52
	Urinary System - Sequelæ of Gonorrhœa -	91	—	2	5·45
	Urinary System - Other diseases - -	99	—	2	4·43
11	Generative System - - -	68	—	—	3·67
12	Organs of Locomotion - -	55	—	10	3·44
13	Cellular Tissue - - -	232	—	1	8·87
14	Cutaneous System - - -	892	—	5	30·61
	III.—Debility - -	87	—	31	7·72
	IV.—Poisons - -	21	—	—	·67
	V.—Injuries.				
1	General - - - -	2	2	—	·48
2	Local - - - - -	929	1	7	38·25
3	In action - - - -	—	—	—	—
	No appreciable disease - -	22	—	—	·83
	Cause unknown (refers to deaths only)	—	—	—	—
	General total - -	7,193	35	194	374·84

* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
per 1,000 of the Strength and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·4	—	—	·07	·1	—	—	·01
6·4	—	—	·56	5·4	·03	—	·27
·4	·13	—	·13	1·0	·11	—	·14
10·0	—	—	·29	11·0	·03	—	·37
—	—	—	—	—	—	—	—
11·7	·13	—	·34	29·1	—	·06	1·06
—	—	—	—	·1	·03	—	—
3·3	·25	—	·12	5·1	·08	—	·20
32·2	·51	—	1·51	51·8	·28	·06	2·05
47·0	—	1·53	3·46	45·1	·08	1·73	2·93
101·7	—	—	7·53	63·5	—	—	5·33
20·1	—	·25	1·52	22·4	—	·61	1·96
7·5	1·91	3·06	1·86	10·7	2·76	4·05	1·77
·3	—	—	·05	·3	—	—	·03
·5	·25	—	·02	1·5	·06	·17	·19
177·1	2·16	4·84	14·44	143·5	2·90	6·56	12·21
10·9	·38	2·54	1·10	13·9	·44	3·60	1·55
17·6	—	·89	·98	14·0	—	·89	·85
8·7	—	·77	·49	6·5	—	·61	·49
·8	—	—	·03	·8	—	·03	·03
15·6	·25	5·47	1·62	17·6	·59	6·09	2·13
13·2	—	—	1·06	12·7	—	·03	1·12
·1	—	—	—	—	—	·03	·01
59·2	·51	·51	2·88	92·2	1·34	1·98	5·06
155·3	·25	2·29	4·51	139·8	1·00	2·82	5·10
106·9	—	—	5·79	99·6	—	—	6·02
11·6	—	·25	·69	10·1	—	·11	·78
12·6	—	·25	·56	14·8	·22	·44	·77
8·7	—	—	·47	9·9	—	·25	·56
7·0	—	1·27	·44	7·4	·06	1·15	·83
29·5	—	·13	1·13	19·5	·03	·11	1·04
113·6	—	·64	3·90	122·3	—	·25	5·00
11·1	—	3·95	·98	12·7	—	2·82	1·16
2·7	—	—	·09	2·3	·14	—	·06
·2	·25	—	·06	·2	·59	·06	·05
118·3	·13	·89	4·87	117·5	·31	1·31	5·28
—	—	—	—	·1	—	·17	·03
2·8	—	—	·11	4·5	—	—	·16
—	—	—	—	—	—	—	—
915·7	4·45	24·69	47·71	913·7	7·90	29·32	52·34

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT E.—Table showing the Average Strength, Admissions into Hospital, the Chatham District during the Year 1884, with the Ratios

Orders.	Average Strength, 3,150.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers: Small-pox	—	—	—	—
	Eruptive Fevers: Other	8	—	—	·56
	Continued ,, : Enteric	—	—	—	—
	Continued ,, : Other	4	—	—	·12
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	11	—	—	·24
	Cholera	—	—	—	—
	Other diseases	19	—	—	1·10
	Total	42	—	—	2·02
	Constitutional Group.				
	Rheumatism	143	2	4	8·90
	Primary Syphilis	445	—	—	36·76
	Secondary ,,	71	—	3	5·36
	Tubercular Diseases	29	3	14	3·89
	Scurvy and Purpura	—	—	—	—
	Other diseases	2	—	1	·29
	Total	690	5	22	55·20
	II. Local Diseases.				
	Diseases of the—				
1	Nervous System	33	—	12	3·67
2	Eye	42	—	5	2·30
3	Ear	12	—	—	·45
4	Nose	—	—	—	—
5	Circulatory System	46	1	28	4·74
6	Absorbent ,,	36	—	—	2·73
7	Ductless Glands	—	—	—	—
8	Respiratory System	150	1	2	6·88
9	Digestive ,,	390	—	9	15·34
10	Urinary System: Gonorrhœa	420	—	—	25·35
	Urinary System: Sequelæ of Gonorrhœa	30	—	—	1·93
	Urinary System: Other diseases	36	—	1	·99
11	Generative System	17	—	1	·98
12	Organs of Locomotion	16	—	7	1·40
13	Cellular Tissue	95	—	—	4·59
14	Cutaneous System	307	—	2	11·04
	III.—*Debility*	24	—	5	1·58
	IV.—*Poisons*	24	—	—	·63
	V.—*Injuries.*				
1	General	—	2	—	—
2	Local	241	3	10	13·64
3	In action	—	—	—	—
	No appreciable disease	10	—	—	·21
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	2,661	12	104	155·67

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* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·1	·05	—	·01
2·5	—	—	·18	3·4	·05	—	·25
—	—	—	—	·6	·27	—	·04
1·3	—	—	·04	7·8	·05	—	·32
—	—	—	—	—	—	—	—
3·5	—	—	·07	9·6	—	—	·34
—	—	—	—	—	—	—	—
6·0	—	—	·35	3·8	·05	—	·17
13·3	—	—	·64	24·8	·47	—	1·13
45·4	·63	1·27	2·83	52·7	·10	2·18	3·16
141·3	—	—	11·67	65·3	—	—	5·08
22·5	—	·95	1·70	18·0	—	·84	1·59
9·2	·95	4·44	1·23	11·4	1·79	5·87	1·23
—	—	—	—	·2	—	—	—
·6	—	·32	·09	·4	—	·10	·02
219·0	1·59	6·98	17·52	148·0	1·89	8·99	11·08
10·5	—	3·81	1·17	12·3	·37	3·31	1·20
13·4	—	1·59	·73	17·5	—	1·79	1·14
3·8	—	—	·14	10·5	—	1·58	·77
—	—	—	—	·4	—	·05	·02
14·6	·32	8·89	1·50	20·9	·63	7·52	1·95
11·4	—	—	·87	9·9	—	—	·66
—	—	—	—	—	—	—	—
47·6	·32	·63	2·18	81·6	·90	1·21	4·21
123·8	—	2·86	4·87	113·1	·37	1·84	3·93
133·3	—	—	8·05	95·5	—	—	5·49
9·5	—	—	·61	11·3	—	—	·65
11·4	—	·32	·31	15·1	·05	·47	·71
5·4	—	·32	·31	8·9	—	·21	·88
5·1	—	2·22	·45	8·4	·05	3·05	·84
30·2	—	—	1·46	23·0	—	·11	·99
97·5	—	·63	3·50	107·2	—	·27	3·68
7·6	—	1·59	·50	17·7	—	4·68	1·23
7·6	—	—	·20	2·6	·11	—	·08
—	·63	—	—	·1	·26	—	—
76·5	·95	3·17	4·33	108·9	·42	1·21	4·54
—	—	—	—	—	—	—	—
3·2	—	—	·07	4·5	—	—	·10
—	—	—	—	—	—	—	—
844·7	3·81	33·01	49·41	842·2	5·52	36·29	44·78

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT F.—Table showing the Average Strength, Admissions into Hospital,
the South-Eastern District during the Year 1884, with the Ratios

Orders.	Average Strength, 5,554. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox - -	—	—	—	·21
	Eruptive Fevers { Other - -	32	—	—	1·83
	Continued „ { Enteric - -	3	2	—	·23
	Continued „ { Other - -	71	—	—	2·17
	Yellow Fever - - - - -	—	—	—	—
	Paroxysmal Fevers - - -	82	—	—	3·16
	Cholera - - - -	1	—	—	·03
	Other diseases - - -	25	—	—	1·48
	Total - - -	214	2	—	9·11
	Constitutional Group.				
	Rheumatism - - - - -	200	—	9	13·27
	Primary Syphilis - - -	484	—	—	40·18
	Secondary „ - - -	140	—	8	12·29
	Tubercular Diseases - - -	48	7	22	7·42
	Scurvy and Purpura - - -	3	—	—	·14
	Other diseases - - -	7	1	—	·40
	Total - - -	882	8	39	73·70
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System - - -	72	2	36	9·81
2	Eye - - - - - -	80	—	7	6·35
3	Ear - - - - - -	33	—	5	2·28
4	Nose - - - - - -	1	—	—	·01
5	Circulatory System - - -	84	2	36	11·70
6	Absorbent „ - - -	67	—	1	4·02
7	Ductless Glands - - -	—	—	—	—
8	Respiratory System - - -	350	2	9	17·97
9	Digestive „ - - -	736	3	20	25·75
10	Urinary System { Gonorrhœa - - -	444	—	—	26·22
	Urinary System { Sequelæ of Gonorrhœa -	46	—	3	3·81
	Urinary System { Other diseases - -	84	1	6	4·63
11	Generative System - - -	45	—	2	2·51
12	Organs of Locomotion - -	51	—	10	4·77
13	Cellular Tissue - - -	138	—	—	5·69
14	Cutaneous System - - -	647	—	1	24·95
	III.—*Debility* - -	77	—	24	8·12
	IV.—*Poisons* - -	31	1	—	·94
	V.—*Injuries.*				
1	General - - - - -	1	1	—	·01
2	Local - - - - - -	769	1	7	37·09
3	In action - - - - -	—	—	—	—
	No appreciable disease - -	17	—	—	·56
	Cause unknown (refers to deaths only)	—	—	—	—
	General total - -	4,869	23	206	280·00

* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	·04	·1	—	—	—
5·7	—	—	·33	7·8	·03	—	·32
·5	·36	—	·04	·6	·13	—	·06
12·8	—	—	·39	10·0	·06	—	·29
—	—	—	—	—	—	—	—
14·8	—	—	·57	32·8	·03	·13	·99
·2	—	—	—	—	—	—	—
4·5	—	—	·27	8·0	·03	·06	·35
38·5	·36	—	1·64	59·3	·28	·19	2·01
36·0	—	1·62	2·39	42·7	·07	1·71	2·71
87·2	—	—	7·23	59·8	—	—	4·80
25·2	—	1·44	2·21	23·4	—	·83	1·93
8·6	1·26	3·96	1·34	10·4	1·46	4·16	1·57
·5	—	—	·03	·1	·03	—	—
1·3	·18	—	·07	2·9	·03	·19	·20
158·8	1·44	7·02	13·27	139·3	1·59	6·89	11·21
13·0	·36	6·48	1·77	15·3	·39	2·95	1·40
14·4	—	1·26	1·14	19·3	—	1·33	1·22
5·9	—	·90	·41	6·9	—	·64	·49
·2	—	—	—	·4	—	—	·01
15·1	·36	6·48	2·11	14·5	·54	4·92	1·59
12·1	—	·18	·72	8·2	·03	·06	·64
—	—	—	—	·2	—	·06	·01
63·0	·36	1·62	3·24	89·4	1·59	1·24	4·39
132·5	·54	3·60	4·64	126·7	·35	2·79	4·64
79·9	—	—	4·72	75·4	—	—	4·47
8·3	—	·54	·69	9·1	—	·22	·73
15·1	·18	1·08	·83	11·0	·12	·57	·61
8·1	—	·36	·45	10·8	—	·25	·58
9·2	—	1·80	·86	7·3	·06	·92	·57
24·8	—	—	1·02	22·0	—	·06	·83
116·5	—	·18	4·49	122·2	—	·48	4·76
18·9	—	4·32	1·46	12·6	—	2·16	·96
5·6	·18	—	·17	2·4	·16	—	·07
·2	·18	—	—	·1	·51	—	·01
138·5	·18	1·26	6·68	128·5	·41	1·17	5·46
—	—	—	—	—	—	—	—
3·1	—	—	·10	4·5	—	—	·11
—	—	—	—	—	—	—	—
876·7	4·14	37·09	50·41	885·4	6·03	26·90	46·72

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT G.--Table showing the Average Strength, Admissions into Hospital,
the Home District during the Year 1884, with the Ratios per

Orders.	Average Strength, 7,021.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers — Small-pox	3	—	—	·41
	Eruptive Fevers — Other	70	—	—	3·77
	Continued „ — Ehteric	5	1	—	·49
	Continued „ — Other	97	1	—	2·76
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	13	—	—	·55
	Cholera	—	—	—	—
	Other diseases	172	2	—	5·83
	Total	360	4	—	13·81
	Constitutional Group.				
	Rheumatism	322	—	8	19·09
	Primary Syphilis	877	—	1	84·06
	Secondary „	281	—	5	27·05
	Tubercular Diseases	76	12	32	8·85
	Scurvy and Purpura	1	—	—	·21
	Other diseases	5	1	2	·53
	Total	1,562	18	48	139·79
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	90	7	25	6·54
2	Eye	75	—	6	3·95
3	Ear	49	—	4	2·54
4	Nose	2	—	—	·08
5	Circulatory System	62	4	32	5·15
6	Absorbent „	95	—	4	11·30
7	Ductless Glands	1	—	—	·13
8	Respiratory System	459	10	12	25·17
9	Digestive „	795	3	16	25·39
10	Urinary System — Gonorrhœa	770	—	—	47·44
	Urinary System — Sequelæ of Gonorrhœa	86	—	—	5·09
	Urinary System — Other diseases	92	—	8	4·96
11	Generative System	56	—	—	3·08
12	Organs of Locomotion	63	—	11	3·89
13	Cellular Tissue	291	—	1	11·52
14	Cutaneous System	627	—	3	20·73
	III.—*Debility*	126	—	6	6·76
	IV.—*Poisons*	13	2	—	·28
	V.—*Injuries.*				
1	General	—	—	—	—
2	Local	631	1	8	26·04
3	In action	—	—	1	—
	No appreciable disease	12	—	—	·34
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	6,317	44	185	363·93

* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·4	—	—	·06	—	·03	—	—
10·0	—	—	·54	4·9	·05	—	·33
·7	·14	—	·07	2·4	·36	—	·36
13·8	·14	—	·39	19·2	·06	—	·56
—	—	—	—	—	—	—	—
1·9	—	—	·08	5·6	—	·08	·18
—	—	—	—	—	—	—	—
24·5	·29	—	·83	8·7	·17	—	·32
51·3	·57	—	1·97	40·8	·67	·08	1·75
45·9	—	1·14	2·72	42·8	·17	1·14	2·51
124·9	—	·14	11·97	157·6	—	—	11·87
40·0	—	·71	3·85	40·1	—	1·36	3·17
10·8	1·71	4·56	1·26	10·3	2·31	5·94	1·49
·1	—	—	·08	·3	—	—	·03
·7	·14	·29	·08	1·4	·11	·20	·09
222·4	1·85	6·84	19·91	252·5	2·59	8·64	19·16
12·8	1·00	3·56	·93	10·8	·67	2·93	·88
10·7	—	·85	·56	10·0	—	·50	·55
7·0	—	·57	·86	3·1	—	·39	·18
·3	—	—	—	·4	—	—	·01
8·8	·57	4·56	·73	11·0	·87	4·65	·96
13·5	—	·57	1·61	13·4	—	·03	1·32
·1	—	—	·02	—	—	—	·01
65·4	1·42	1·71	3·59	77·7	1·23	2·04	3·76
113·2	·43	2·28	3·62	112·1	·31	1·65	3·65
109·7	—	—	6·76	95·4	—	—	5·50
12·2	—	—	·72	12·8	—	·22	·77
18·1	—	1·14	·71	11·0	·22	·81	·49
8·0	—	—	·44	9·0	—	·25	·46
9·0	—	1·57	·55	6·8	·03	1·17	·52
41·5	—	·14	1·64	34·4	·03	·17	1·42
89·8	—	·43	2·95	94·8	—	·33	2·95
17·9	—	·85	·96	12·4	·03	1·84	·73
1·9	·29	—	·04	2·8	·16	—	·08
—	—	—	—	·2	·22	—	—
89·9	·14	1·14	3·71	86·2	·16	·70	3·34
—	—	·14	—	—	—	·08	—
1·7	—	—	·05	1·8	—	—	·04
	—	—	—	—	—	—	—
899·7	6·27	26·35	51·83	899·4	7·19	26·48	48·53

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT H.—Table showing the Average Strength, Admissions into Hospital, the Woolwich District during the Year 1884, with the Ratios

Orders.	Average Strength, 4,373. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	36	—	—	2·51
	Continued „ { Enteric	—	—	—	—
	Continued „ { Other	25	—	—	1·10
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	37	—	—	1·38
	Cholera	—	—	—	—
	Other diseases	23	—	—	1·70
	Total	121	—	—	6·69
	Constitutional Group.				
	Rheumatism	139	—	7	13·03
	Primary Syphilis	576	—	—	71·74
	Secondary „	100	—	4	12·58
	Tubercular Diseases	23	7	9	4·46
	Scurvy and Purpura	1	—	—	·05
	Other diseases	3	1	—	·50
	Total	842	8	20	102·36
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	43	1	15	4·76
2	Eye	35	—	5	3·23
3	Ear	26	—	3	3·11
4	Nose	2	—	—	·29
5	Circulatory System	39	3	22	7·18
6	Absorbent „	55	—	—	7·70
7	Ductless Glands	—	—	—	—
8	Respiratory System	214	6	4	13·58
9	Digestive „	412	5	9	20·60
10	Urinary System { Gonorrhœa	379	—	—	31·40
	Urinary System { Sequelæ of Gonorrhœa	41	—	—	3·15
	Urinary System { Other diseases	60	—	6	4·31
11	Generative System	22	—	—	1·53
12	Organs of Locomotion	25	—	11	4·27
13	Cellular Tissue	63	—	—	3·87
14	Cutaneous System	303	—	4	17·30
	III.—*Debility*	32	—	10	4·63
	IV.—*Poisons*	10	1	—	·27
	V.—*Injuries.*				
1	General	—	—	1	·26
2	Local	354	—	5	23·39
3	In action	—	—	—	—
	No appreciable disease	22	—	—	·68
	Cause unknown (refers to deaths only)	—	1	—	—
	General total	3,100	25	115	264·56

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* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·5	—	—	·05
8·2	—	—	·57	5·4	·08	—	·31
—	—	—	—	·2	·08	—	·02
5·7	—	—	·25	7·6	—	—	·26
—	—	—	—	—	—	—	—
8·5	—	—	·32	19·0	—	·04	·69
—	—	—	—	—	—	—	—
5·3	—	—	·39	34·4	·21	—	·96
27·7	—	—	1·53	67·1	·37	·04	2·29
31·8	—	1·60	2·98	30·8	—	1·17	2·20
131·7	—	—	16·41	65·5	—	—	5·87
22·9	—	·91	2·88	54·0	·04	·75	5·32
5·2	1·60	2·06	1·02	9·0	2·26	4·61	1·48
·2	—	—	·01	·2	—	—	·01
·7	·23	—	·11	2·2	·08	·38	·19
192·5	1·83	4·57	23·41	161·7	2·38	6·91	15·07
9·8	·23	3·43	1·09	7·6	·50	1·68	·75
8·0	—	1·14	·74	10·1	—	·59	·64
5·9	—	·68	·71	4·0	—	·71	·30
·5	—	—	·07	·3	—	—	·02
8·9	·69	5·03	1·64	10·3	·46	3·94	1·06
12·6	—	—	1·76	10·6	—	·08	1·24
—	—	—	—	—	—	—	—
48·9	1·37	·92	3·11	46·9	1·38	1·93	2·90
94·2	1·14	2·06	4·71	96·7	·46	1·84	3·41
86·7	—	—	7·18	65·8	—	—	3·82
9·4	—	—	·72	14·9	—	·08	·79
13·7	—	1·37	·98	9·6	·34	·46	·51
5·0	—	—	·35	7·5	—	·17	·44
5·7	—	2·52	·98	5·8	·04	1·22	·66
14·4	—	—	·88	18·6	—	·21	1·02
69·3	—	·92	3·96	80·4	—	·29	3·60
7·3	—	2·29	1·06	7·8	—	1·97	·72
2·3	·23	—	·06	2·4	·17	—	·06
—	—	·23	·06	·1	·21	—	—
81·0	—	1·14	5·35	77·6	·34	·54	3·63
—	—	—	—	—	—	·04	·01
5·0	—	—	·15	7·9	—	—	·08
—	·23	—	—	—	—	—	—
708·8	5·72	26·30	60·50	713·7	6·65	22·70	43·02

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ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT I.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the ALDERSHOT DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 9,201. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox - -	—	—	—	—
	Eruptive Fevers { Other - -	92	—	—	5·93
	Continued „ { Enteric - -	18	—	—	2·82
	Continued „ { Other - -	155	—	—	6·88
	Yellow Fever - - - -	—	—	—	—
	Paroxysmal Fevers - - -	45	—	1	1·81
	Cholera - - - -	—	—	—	—
	Other diseases - - -	36	2	—	2·23
	Total - - -	346	2	1	19·67
	Constitutional Group.				
	Rheumatism - - -	442	1	4	30·36
	Primary Syphilis - - -	1,729	—	—	154·51
	Secondary „ - - -	317	—	—	22·57
	Tubercular Diseases - - -	59	8	26	5·40
	Scurvy and Purpura - - -	4	1	—	·22
	Other diseases - - -	17	1	—	1·04
	Total - - -	2,568	11	30	214·10
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System - - -	73	4	25	7·78
2	Eye - - - - - -	148	—	9	8·18
3	Ear - - - - - -	64	—	5	8·69
4	Nose - - - - - -	3	—	—	·16
5	Circulatory System - - -	76	3	27	6·91
6	Absorbent „ - - -	187	—	—	18·22
7	Ductless Glands - - -	—	—	—	—
8	Respiratory System - - -	565	7	7	30·39
9	Digestive „ - - -	1,055	4	9	33·07
10	Urinary System { Gonorrhœa - - -	954	—	—	59·98
	Urinary System { Sequelæ of Gonorrhœa -	70	—	—	4·60
	Urinary System { Other diseases - -	79	2	4	3·99
11	Generative System - - -	58	—	1	2·92
12	Organs of Locomotion - -	44	—	10	3·39
13	Cellular Tissue - - -	180	—	—	8·99
14	Cutaneous System - - -	774	—	—	32·06
	III.—*Debility* - -	54	—	11	3·01
	IV.—*Poisons* - -	35	2	—	·79
	V.—*Injuries.*				
1	General - - - - -	—	1	—	—
2	Local - - - - - -	1,124	1	10	49·87
3	In action - - - - -	—	—	—	—
	No appreciable disease - -	22	—	—	·95
	Cause unknown (refers to deaths only)	—	—	—	—
	General total - -	8,479	37	149	512·72

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* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	·01
10·0	—	—	·64	8·2	·06	—	·42
2·0	—	—	·31	1·2	·30	—	·15
16·8	—	—	·75	14·7	·02	—	·59
—	—	—	—	—	—	—	—
4·9	—	·11	·19	6·7	·02	·01	·28
—	—	—	—	—	—	—	—
3·9	·22	—	·24	6·5	·05	—	·38
37·6	·22	·11	2·13	37·3	·45	·01	1·83
48·0	·11	·43	3·30	47·8	·04	1·65	3·14
187·9	—	—	16·79	98·8	—	—	7·02
34·5	—	—	2·45	22·0	—	·40	1·70
6·4	·87	2·83	·59	8·7	1·63	3·76	1·08
·4	·11	—	·02	·2	—	—	·01
1·9	·11	—	·11	1·2	·17	·02	·09
279·1	1·20	3·26	23·26	178·7	1·84	5·83	13·04
7·9	·43	2·73	·85	12·8	·49	2·68	1·22
16·1	—	·98	·89	18·4	—	·95	1·01
6·9	—	·55	·40	8·0	—	·86	·56
·3	—	—	·02	·6	—	·04	·03
8·2	·83	2·93	·75	18·5	·63	6·68	1·78
20·3	—	—	1·98	14·3	—	·02	1·14
—	—	—	—	·1	—	—	·01
61·4	·76	·76	3·30	70·4	·99	1·16	4·09
114·7	·43	·98	3·59	111·2	·42	2·59	4·94
108·7	—	—	6·52	105·4	—	—	6·48
7·6	—	—	·50	6·9	—	·04	·49
8·6	·22	·43	·43	10·5	·08	·59	·58
6·3	—	·11	·32	13·7	·02	·15	·76
4·8	—	1·09	·87	6·2	·06	1·41	·52
19·6	—	—	·98	21·5	—	·02	1·14
84·1	—	—	3·49	107·4	—	·48	5·26
5·9	—	1·20	·33	11·0	—	2·93	·83
3·8	·22	—	·09	1·2	·04	—	·05
—	·11	—	—	·1	·28	·02	·07
122·2	·11	1·09	5·42	90·8	·27	·85	4·41
—	—	—	—	—	—	—	—
2·4	—	—	·10	1·7	—	—	·10
—	—	—	—	—	—	—	—
921·5	4·02	16·22	55·72	846·7	5·57	27·31	50·29

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ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT J.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the NORTH BRITISH DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 3,165.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.– *General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	22	—	—	1·03
	Continued " { Enteric	3	1	—	·21
	Continued " { Other	47	—	—	1·19
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	7	—	—	·17
	Cholera	—	—	—	—
	Other diseases	25	1	—	·71
	Total	104	2	—	3·31
	Constitutional Group.				
	Rheumatism	102	—	7	6·40
	Primary Syphilis	281	—	—	19·70
	Secondary "	73	—	2	4·97
	Tubercular Diseases	20	4	6	2·44
	Scurvy and Purpura	1	—	—	·05
	Other diseases	2	—	—	·12
	Total	479	4	15	33·68
	II.- *Local Diseases.*				
	Diseases of the—				
1	Nervous System	30	4	11	1·82
2	Eye	63	—	4	3·16
3	Ear	13	—	—	·64
4	Nose	—	—	—	—
5	Circulatory System	17	1	8	1·34
6	Absorbent "	28	—	1	1·45
7	Ductless Glands	1	—	1	·09
8	Respiratory System	189	3	5	8·26
9	Digestive "	340	2	6	8·23
10	Urinary System { Gonorrhœa	354	—	—	16·91
	Urinary System { Sequelæ of Gonorrhœa	25	—	—	1·42
	Urinary System { Other diseases	40	—	1	1·70
11	Generative System	45	—	1	2·01
12	Organs of Locomotion	13	—	2	·72
13	Cellular Tissue	101	—	—	4·60
14	Cutaneous System	284	—	3	10·65
	III.—*Debility*	17	—	8	1·36
	IV.—*Poisons*	8	—	—	·21
	V.—*Injuries.*				
1	General	1	1	—	·21
2	Local	355	—	6	12·57
3	In action	—	—	1	—
	No appreciable disease	3	—	—	·06
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	2,510	17	73	114·40

* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
7·0	—	—	·33	8·5	·06	—	·30
·9	·31	—	·07	·8	·25	—	·11
14·8	—	—	·38	11·7	—	—	·32
—	—	—	—	—	—	—	—
2·2	—	—	·05	19·8	·12	—	·63
—	—	—	—	—	—	—	—
7·9	·31	—	·22	9·6	·06	—	·34
32·8	·63	—	1·05	50·4	·49	—	1·70
32·2	—	2·21	2·02	37·9	·18	1·05	1·77
88·8	—	—	6·22	66·5	—	—	4·39
23·1	—	·63	1·57	32·3	·06	·55	2·08
6·3	1·26	1·90	·77	12·4	1·97	5·04	1·54
·3	—	—	·02	·2	—	—	·02
·6	—	—	·04	·9	·12	·06	·08
151·3	1·26	4·74	10·64	150·2	2·83	6·70	9·88
9·5	1·26	3·48	·57	12·7	·43	2·95	·98
20·0	—	1·26	1·00	14·8	—	·55	·91
4·1	—	—	·20	3·6	—	·62	·26
—	—	—	—	·4	—	—	·03
5·4	·31	2·53	·42	15·8	·92	5·35	1·09
8·9	—	·31	·46	11·6	—	—	·81
·3	—	·31	·03	·2	—	—	·01
59·7	·95	1·58	2·61	82·1	1·73	·98	3·37
107·4	·63	1·90	2·60	105·0	·68	2·34	3·41
111·9	—	—	5·34	83·4	—	—	3·95
7·9	—	—	·45	13·5	—	·06	·69
12·6	—	·31	·54	13·4	·31	·80	·64
14·2	—	·31	·63	12·1	—	·37	·51
4·1	—	·63	·23	5·9	·12	1·35	·49
31·9	—	—	1·45	26·2	·06	·18	1·11
89·7	—	·95	3·36	110·5	—	·25	3·84
5·4	—	2·53	·43	12·0	—	1·85	·71
2·5	—	—	·07	1·7	·13	—	·05
·3	·31	—	·07	—	·55	—	—
112·2	—	1·90	3·97	126·0	·87	1·11	4·71
—	—	·31	—	1·1	—	—	·08
·9	—	—	·02	1·7	—	·61	·07
—	—	—	—	—	—	—	—
793·0	5·37	23·06	36·14	854·3	8·12	26·07	39·30

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ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT K.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the CHANNEL ISLANDS DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 1,396. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	2	—	—	·05
	Continued „ { Enteric	—	—	—	—
	Continued „ { Other	16	—	—	·29
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	8	—	—	·22
	Cholera	—	—	—	—
	Other diseases	4	1	—	·07
	Total	30	1	—	·63
	Constitutional Group.				
	Rheumatism	37	—	—	1·28
	Primary Syphilis	269	—	—	22·90
	Secondary „	42	—	—	2·68
	Tubercular Diseases	5	—	1	·24
	Scurvy and Purpura	1	—	—	·01
	Other diseases	1	—	—	·04
	Total	355	—	1	27·15
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	9	—	2	·43
2	Eye	18	—	—	·50
3	Ear	13	—	1	·94
4	Nose	2	—	—	·09
5	Circulatory System	14	—	4	·73
6	Absorbent „	17	—	—	1·36
7	Ductless Glands	—	—	—	—
8	Respiratory System	66	—	1	3·98
9	Digestive „	134	—	2	4·27
10	Urinary System { Gonorrhœa	250	—		12·81
	Urinary System { Sequelæ of Gonorrhœa	33	—	—	1·52
	Urinary System { Other diseases	34	—	1	1·20
11	Generative System	13	—	—	·65
12	Organs of Locomotion	10	—	1	1·17
13	Cellular Tissue	22	—	—	·64
14	Cutaneous System	158	—	—	5·10
	III.—*Debility*	14	—	1	1·01
	IV.—*Poisons*	2	—	—	·03
	V.—*Injuries.*				
1	General	1	1	1	·53
2	Local	159	—	—	5·17
3	In action	—	—	—	—
	No appreciable disease	3	—	—	·06
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	1,357	2	15	69·97

* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
1·4	—	—	·03	1·2	—	—	·05
—	—	—	—	·7	—	—	·16
11·5	—	—	·21	17·5	—	—	·37
—	—	—	—	—	—	—	—
5·7	—	—	·16	4·2	—	—	·11
—	—	—	—	—	—	—	—
2·9	·72	—	·05	2·7	—	—	·20
21·5	·72	—	·45	26·3	—	—	·89
26·5	—	—	·92	32·3	—	·45	1·74
192·7	—	—	16·40	117·8	—	—	9·46
30·1	—	—	1·92	30·3	—	·15	1·70
3·6	—	·72	·17	6·6	2·10	1·80	·89
·7	—	—	·01	—	—	—	—
·7	—	—	·03	3·3	—	—	·16
254·3	—	·72	19·45	190·3	2·10	2·40	13·95
6·4	—	1·43	·31	9·2	·30	1·80	·78
12·9	—	—	·36	15·0	—	·45	·66
9·3	—	·72	·67	3·9	—	·30	·16
1·4	—	—	·06	·4	—	—	·02
10·0	—	2·86	·52	11·4	·45	1·65	·64
12·2	—	—	·98	26·6	—	—	2·52
—	—	—	—	·1	—	—	·01
47·3	—	·72	2·85	64·7	·75	1·05	2·55
96·0	—	1·43	3·06	103·1	·30	·90	2·98
179·1	—	—	9·18	166·4	—	—	8·75
23·6	—	—	1·09	20·9	—	—	1·17
24·4	—	·72	·86	16·4	—	·15	·57
9·3	—	—	·47	9·9	—	—	·38
7·2	—	·72	·84	5·6	—	·75	·65
15·8	—	—	·46	18·9	—	—	·63
113·2	—	—	3·65	128·2	—	·15	4·14
10·0	—	·72	·72	8·1	—	2·10	·63
1·4	—	—	·02	5·2	·15	—	·10
·7	·72	·72	·38	·3	1·05	—	·03
113·9	—	—	3·70	142·4	·30	1·20	4·87
—	—	—	—	—	—	—	—
2·1	—	—	·04	2·7	—	—	·09
—	—	—	—	—	—	—	—
972·0	1·43	10·74	50·12	976·0	5·40	12·90	47·17

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ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT L.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the BELFAST DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 2,783. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	8	—	—	·96
	Continued „ { Enteric	1	—	—	·18
	Continued „ { Other	43	—	—	·99
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	1	—	—	·01
	Cholera	—	—	—	—
	Other diseases	9	—	—	·28
	Total	62	—	—	2·42
	Constitutional Group.				
	Rheumatism	65	1	—	3·46
	Primary Syphilis	238	—	—	18·92
	Secondary „	61	—	1	5·90
	Tubercular Diseases	24	8	9	5·31
	Scurvy and Purpura	—	—	—	—
	Other diseases	—	—	—	—
	Total	388	9	10	33·59
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	28	2	11	3·75
2	Eye	38	—	3	1·46
3	Ear	21	—	3	1·20
4	Nose	2	—	—	·05
5	Circulatory System	16	—	5	1·08
6	Absorbent „	31	—	—	2·76
7	Ductless Glands	1	—	—	·15
8	Respiratory System	124	1	—	5·94
9	Digestive „	235	2	4	6·30
10	Urinary System { Gonorrhœa	283	—	—	14·77
	Urinary System { Sequelæ of Gonorrhœa	26	—	1	3·62
	Urinary System { Other diseases	34	1	—	·74
11	Generative System	24	—	1	·87
12	Organs of Locomotion	12	—	3	·74
13	Cellular Tissue	88	—	—	2·44
14	Cutaneous System	242	—	1	6·62
	III.—Debility	28	—	7	1·04
	IV.—Poisons	1	—	—	—
	V.—Injuries.				
1	General	—	—	—	—
2	Local	200	—	1	6·78
3	In action	—	—	—	—
	No appreciable disease	3	—	—	·08
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	1,882	15	50	96·40

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* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·1	·07	—	—
2·9	—	—	·35	4·0	·07	—	·23
·4	—	—	·07	·8	·15	—	·10
15·4	—	—	·35	20·3	·28	—	·47
—	—	—	—	—	—	—	—
·4	—	—	—	6·3	—	·07	·16
—	—	—	—	—	—	—	—
3·2	—	—	·10	7·9	—	—	·30
22·3	—	—	·87	39·4	·52	·07	1·26
23·4	·36	—	1·24	39·8	—	1·88	2·11
85·5	—	—	6·80	116·6	—	—	7·99
21·9	—	·36	2·12	26·8	·07	·38	1·68
8·6	2·87	3·28	1·91	10·1	1·88	3·91	1·08
—	—	—	—	·8	—	—	·03
—	—	—	—	·6	·07	—	·05
139·4	3·23	3·59	12·07	194·2	2·08	6·17	12·94
10·1	·72	3·95	1·35	12·3	·45	2·78	1·27
13·6	—	1·08	·52	15·7	—	·98	·86
7·5	—	1·08	·43	5·0	—	·60	·23
·7	—	—	·02	·5	—	—	·02
5·7	—	1·80	·39	13·0	1·20	2·80	·85
11·1	—	—	·99	16·0	—	—	1·28
·4	—	—	·05	—	—	—	—
44·6	·36	—	2·13	66·5	1·51	1·73	2·90
84·4	·72	1·44	2·26	96·7	·45	1·50	2·66
101·7	—	—	5·31	107·9	—	—	5·40
9·3	—	·36	1·30	6·9	—	—	·38
12·2	·36	—	·27	10·9	·23	·45	·48
8·6	—	·36	·31	11·0	—	·30	·38
4·3	—	1·08	·27	4·7	·07	1·20	·38
31·6	—	—	·88	20·2	—	—	·69
87·0	—	·36	2·38	115·2	—	·38	4·04
8·3	—	2·51	·37	12·9	—	2·56	·77
·4	—	—	—	2·8	·15	—	·08
—	—	—	—	·2	·45	—	·01
71·9	—	·36	2·44	98·8	·23	·98	3·35
—	—	—	—	—	—	—	—
1·1	—	—	·03	2·6	—	—	·13
—	—	—	—	—	—	—	—
676·2	5·39	17·97	34·64	858·4	7·30	22·51	40·36

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ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT M.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the DUBLIN DISTRICT during the Year 1884, with the Ratios

Orders.	Average Strength, 8,048. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers: Small-pox	—	—	—	—
	Eruptive Fevers: Other	40	—	—	1·90
	Continued „ : Enteric	20	2	—	2·51
	Continued „ : Other	118	—	—	3·12
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	42	—	2	1·60
	Cholera	—	—	—	—
	Other diseases	46	1	—	1·97
	Total	266	3	2	11·10
	Constitutional Group.				
	Rheumatism	364	—	9	25·45
	Primary Syphilis	1,407	—	—	117·01
	Secondary „	423	—	9	33·19
	Tubercular Diseases	52	13	24	7·19
	Scurvy and Purpura	—	—	—	·08
	Other diseases	6	1	1	·18
	Total	2,252	14	43	183·10
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	92	8	41	14·27
2	Eye	134	—	8	7·34
3	Ear	29	—	4	2·38
4	Nose	5	—	—	·06
5	Circulatory System	129	4	45	10·50
6	Absorbent „	158	—	—	14·64
7	Ductless Glands	—	—	—	—
8	Respiratory System	531	12	4	28·82
9	Digestive „	914	4	14	28·66
10	Urinary System: Gonorrhœa	1,130	—	—	78·17
	Urinary System: Sequelæ of Gonorrhœa	91	—	—	4·56
	Urinary System: Other diseases	185	1	5	8·46
11	Generative System	90	—	1	5·18
12	Organs of Locomotion	48	—	7	4·27
13	Cellular Tissue	188	—	—	7·56
14	Cutaneous System	825	—	4	30·77
	III.—*Debility*	85	—	17	7·32
	IV.—*Poisons*	17	1	—	·44
	V.—*Injuries.*				
1	General	—	7	—	—
2	Local	971	4	6	41·24
3	In action	—	—	—	—
	No appreciable disease	20	—	—	·79
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	8,160	58	201	489·63

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* The average ratios for 10 years will be given in future years. The average ratios for the six years, 1879 to 1884,

Deaths, Numbers Invalided and Constantly Sick among the **Troops** stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·3	—	—	·03
5·0	—	—	·24	5·6	·09	—	·27
2·5	·25	—	·31	2·1	·37	—	·20
14·6	—	—	·39	16·6	·09	—	·58
—	—	—	—	—	—	—	—
5·2	—	·25	·20	4·9	·02	·02	·15
—	—	—	—	—	—	—	—
5·7	·12	—	·24	6·3	·17	—	·23
33·0	·37	·25	1·38	35·8	·74	·02	1·46
45·2	—	1·12	3·15	33·5	·07	·76	1·80
174·8	—	—	14·54	138·2	—	—	10·77
52·6	—	1·12	4·13	36·1	·04	·46	2·41
6·5	1·62	2·98	·90	8·9	1·46	3·85	1·21
—	—	—	·01	·3	—	—	·02
·7	·12	·12	·02	·9	·02	·02	·08
279·8	1·74	5·34	22·75	217·9	1·59	5·09	16·29
11·4	·99	5·09	1·77	11·1	·39	2·65	1·53
16·7	—	·99	·91	14·9	—	·74	·75
3·6	—	·50	·30	5·6	—	·59	·30
·6	—	—	·01	·5	—	·04	·02
16·0	·50	5·59	1·31	13·0	·61	3·47	1·23
19·6	—	—	1·82	14·3	—	·06	1·18
—	—	—	—	—	—	·07	—
66·0	1·49	·50	3·58	76·7	1·34	·81	3·85
113·6	·50	1·74	3·56	96·1	·48	1·69	2·97
140·4	—	—	9·71	113·4	—	—	6·74
11·3	—	—	·57	11·7	—	·02	·75
23·0	·12	·62	1·05	15·7	·13	·33	·66
11·2	—	·12	·64	11·6	—	·11	·62
6·0	—	·87	·53	6·8	·02	1·39	·57
23·4	—	—	·94	23·0	—	·17	1·03
102·5	—	·50	3·82	115·6	—	·35	4·41
10·6	—	2·11	·91	7·3	—	·93	·51
2·1	·12	—	·05	1·9	·07	—	·05
—	·87	—	—	·1	·52	—	—
120·6	·50	·75	5·13	109·2	·33	·52	4·07
—	—	—	—	—	—	—	—
2·5	—	—	·10	2·7	—	—	·11
—	—	—	—	—	—	—	—
1,013·9	7·20	24·97	60·84	904·9	6·22	19·05	49·10

will be given in the Report for 1885; until the year 1882 the Curragh was included in the Dublin District.

ABSTRACT N.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the CORK DISTRICT during the Year 1884, with the Ratios per

Orders.	Average Strength, 8,170.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive fevers { Small-pox	—	—	—	—
	Eruptive fevers { Other	13	—	—	·77
	Continued „ { Enteric	14	3	—	2·26
	Continued „ { Other	80	—	—	1·85
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	32	—	—	·77
	Cholera	—	—	—	—
	Other diseases	25	—	—	1·95
	Total	164	3	—	7·60
	Constitutional Group.				
	Rheumatism	238	—	9	12·68
	Primary Syphilis	494	—	—	39·88
	Secondary „	167	—	—	11·46
	Tubercular Diseases	59	11	20	7·70
	Scurvy and Purpura	3	—	—	·11
	Other diseases	7	2	—	1·11
	Total	968	13	29	72·94
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	96	2	26	11·02
2	Eye	133	—	2	6·34
3	Ear	59	—	4	3·26
4	Nose	10	—	—	·97
5	Circulatory System	86	1	27	7·57
6	Absorbent „	79	—	—	5·05
7	Ductless Glands	—	—	—	—
8	Respiratory System	476	6	6	22·97
9	Digestive „	941	1	12	25·92
10	Urinary System { Gonorrhœa	456	—	—	27·78
	Urinary System { Sequelæ of Gonorrhœa	81	—	—	4·91
	Urinary System { Other diseases	79	—	2	3·59
11	Generative System	59	—	1	3·11
12	Organs of Locomotion	48	—	3	3·47
13	Cellular Tissue	203	—	1	8·71
14	Cutaneous System	905	—	2	33·60
	III.—*Debility*	76	—	9	5·37
	IV.—*Poisons*	11	—	—	·43
	V.—*Injuries.*				
1	General	1	1	—	·09
2	Local	937	7	3	31·22
3	In action	—	—	—	—
	No appreciable disease	24	—	—	·49
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	5,892	34	127	286·41

* The average ratios for 10 years will be given in future years. The average

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1883.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
1·6	—	—	·09	4·2	·21	—	·26
1·7	37	—	·28	3·3	·44	—	·34
9·8	—	—	·23	19·2	·05	—	·58
—	—	—	—	—	—	—	—
3·9	—	—	·09	10·7	—	—	·30
—	—	—	—	—	—	—	—
3·1	—	—	·24	8·8	·08	—	·25
20·1	·37	—	·93	46·2	·78	—	1·73
29·1	—	1·10	1·55	32·2	—	·57	1·65
60·5	—	—	4·88	63·0	—	—	4·49
20·4	—	—	1·40	20·8	·03	·23	1·43
7·2	1·35	2·45	·94	9·6	1·65	2·95	1·07
·4	—	—	·01	·2	—	—	·02
·9	·24	—	·14	1·6	·10	·13	·08
118·5	1·59	3·55	8·92	127·4	1·78	3·88	8·74
11·8	·24	3·18	1·35	11·6	·36	2·45	·91
16·3	—	·24	·78	14·1	—	·78	·64
7·2	—	·49	·40	6·2	—	·31	·32
1·2	—	—	·12	·6	—	—	·02
10·5	·12	3·31	·93	12·4	·56	2·74	·94
9·7	—	—	·62	7·7	·03	·08	·45
—	—	—	—	·1	—	—	·01
58·3	·74	·74	2·81	61·3	1·06	·49	2·53
115·2	·12	1·47	3·17	106·4	·36	1·18	2·95
55·8	—	—	3·40	66·1	—	—	3·49
9·9	—	—	·60	8·2	—	·08	·55
9·7	—	·24	·44	10·7	·05	·26	·41
7·2	—	·12	·38	9·9	—	·05	·45
5·9	—	·37	·43	6·0	·10	·93	·42
24·8	—	·12	1·07	22·0	—	·03	·95
110·8	—	·24	4·11	108·5	—	·21	3·90
9·3	—	1·10	·66	8·4	·03	1·31	·59
1·3	—	—	·05	1·1	·08	—	·04
·1	·12	—	·01	·1	·34	—	·01
114·7	·86	·37	3·82	115·9	·26	·67	3·84
—	—	—	—	—	—	—	—
2·9	—	—	·06	3·1	—	—	·09
—	—	—	—	—	—	—	—
721·2	4·16	15·54	35·06	754·0	5·79	15·45	33·98

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT O.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed in the CURRAGH DISTRICT during the Year 1884, with the

Orders.	Average Strength, 3,891.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers — Small-pox	—	—	—	—
	Eruptive Fevers — Other	2	—	—	·06
	Continued „ — Enteric	4	—	—	·49
	Continued „ — Other	28	—	—	1·03
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	9	—	—	·72
	Cholera	—	—	—	—
	Other diseases	9	1	—	·45
	Total	52	1	—	2·75
	Constitutional Group.				
	Rheumatism	107	—	4	6·89
	Primary Syphilis	489	—	—	49·70
	Secondary „	74	—	1	7·19
	Tubercular Diseases	14	4	5	2·77
	Scurvy and Purpura	2	—	—	·05
	Other diseases	13	—	1	1·02
	Total	699	4	11	67·62
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	23	—	7	1·78
2	Eye	44	—	1	1·74
3	Ear	21	—	3	1·30
4	Nose	—	—	—	—
5	Circulatory System	42	1	10	3·03
6	Absorbent „	63	—	1	5·13
7	Ductless Glands	1	—	—	·02
8	Respiratory System	206	1	1	13·75
9	Digestive „	332	—	1	10·39
10	Urinary System — Gonorrhœa	235	—	—	14·77
	Urinary System — Sequelæ of Gonorrhœa	34	—	—	2·06
	Urinary System — Other diseases	89	—	1	3·23
11	Generative System	24	—	—	1·58
12	Organs of Locomotion	18	—	2	1·52
13	Cellular Tissue	89	—	1	3·64
14	Cutaneous System	294	—	—	10·89
	III.—Debility	20	—	2	3·07
	IV.—Poisons	2	—	—	·06
	V.—Injuries.				
1	General	—	—	—	—
2	Local	355	—	1	12·31
3	In action	—	—	—	—
	No appreciable disease	14	—	—	·54
	Cause unknown (refers to death only)	—	—	—	—
	General total	2,657	7	42	161·18

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* The average ratios for 10 years will be given in future years. The average ratios for the two years, 1883 to 1884

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS Ratios per 1,000 of the Strength and the average Ratios for 10 Years.*

Ratio per 1,000.				Ratio per 1,000 for 1883.			
Admissions.	Deaths.	Invalids discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
·6	—	—	·02	3·0	—	—	·35
1·2	—	—	·15	—	—	—	—
8·3	—	—	·30	10·5	—	—	·24
—	—	—	—	—	—	—	—
2·6	—	—	·21	10·5	—	·66	·42
—	—	—	—	—	—	—	—
2·6	·29	—	·13	3·6	—	—	·12
15·3	·29	—	·81	27·6	—	·66	1·13
31·6	—	1·18	2·03	33·2	—	1·31	2·09
144·2	—	—	14·66	136·1	—	—	9·91
21·8	—	·29	2·12	19·7	—	·33	1·46
4·1	1·18	1·48	·82	10·9	1·31	4·27	1·46
·6	—	—	·01	·3	—	—	·02
3·8	—	·29	·30	1·3	—	—	·23
206·1	1·18	3·24	19·94	201·5	1·31	5·91	15·17
6·8	—	2·06	·52	11·5	·33	1·31	·87
13·0	—	·29	·51	10·9	—	—	·53
6·2	—	·89	·38	3·6	—	—	·14
—	—	—	—	—	—	—	—
12·4	·29	2·95	·89	16·4	·33	3·29	·97
18·6	—	·29	1·51	18·2	—	—	1·05
·3	—	—	·01	—	—	—	—
60·7	·29	·29	4·06	91·7	·99	·66	5·86
97·9	—	·29	3·06	102·6	—	1·64	3·59
69·3	—	—	4·36	72·7	—	—	4·58
10·0	—	—	·61	11·2	—	—	·91
26·3	—	·29	·95	19·7	—	·33	·58
7·1	—	—	·47	13·8	—	—	·92
5·3	—	·59	·45	3·6	·33	·66	·36
26·3	—	·29	1·07	15·5	—	—	·63
86·7	—	—	3·21	94·1	—	—	3·57
5·9	—	·59	·91	10·9	—	·99	1·16
·6	—	—	·02	1·6	—	—	·03
—	—	—	—	—	—	—	—
104·7	—	·29	3·63	99·0	·33	·99	4·43
—	—	—	—	—	—	—	—
4·1	—	—	·16	7·6	—	—	·21
—	—	—	—	—	—	—	—
783·6	2·06	12·38	47·58	828·7	3·62	16·44	46·69

will be given in the Report for 1885; until the year 1882 the Curragh District was included in the Dublin District.

ABSTRACT P.—TABLE showing the AVERAGE STRENGTH, SICKNESS, and MORTALITY, the ratios per 1,000

Orders.	Average Strength.	Officers, 3,431.			
	Diseases.	Attacks of Illness.	Deaths.	Ratios per 1,000.	
				Attacks.	Deaths.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive fevers { Small-pox	—	—	—	—
	Eruptive fevers { Other	16	—	4·7	—
	Continued „ { Enteric	2	—	·6	—
	Continued „ { Other	36	—	10·5	—
	Yellow Fevers	—	—	—	—
	Paroxysmal Fever	19	—	5·5	—
	Cholera	—	—	—	—
	Other diseases	16	—	4·7	—
	Total	89	—	26·0	—
	Constitutional Group.				
	Rheumatism	84	—	24·5	—
	Primary Syphilis	12	—	3·5	—
	Secondary „	7	—	2·0	—
	Tubercular Diseases	—	—	—	—
	Scurvy and Purpura	—	—	—	—
	Other diseases	1	—	·3	—
	Total	104	—	30·3	—
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	38	1	11·1	·29
2	Eye	17	—	4·9	—
3	Ear	7	—	2·0	—
4	Nose	1	—	·3	—
5	Circulatory System	8	3	2·3	·87
6	Absorbent „	14	—	4·1	—
7	Ductless Glands	—	—	—	—
8	Respiratory System	131	3	38·2	·87
9	Digestive „	212	3	61·8	·87
10	Urinary System { Gonorrhœa	22	—	6·4	—
	Urinary System { Sequelæ of Gonorrhœa	13	—	3·8	—
	Urinary System { Other diseases	23	—	6·7	—
11	Generative System	14	—	4·1	—
12	Organs of Locomotion	12	1	3·5	·29
13	Cellular Tissue	35	—	10·2	—
14	Cutaneous System	47	—	13·7	—
	III.—*Debility*	21	—	6·1	—
	IV.—*Poisons*	2	1	·6	·29
	V.—*Injuries.*				
1	General	—	—	—	—
2	Local	217	1	63·2	·29
3	In action	—	—	—	—
	No appreciable disease	—	—	—	—
	Cause unknown (refers to death only)	—	1	—	·29
	General total	1,027	14	299·3	4·08

among the OFFICERS, WOMEN, and CHILDREN, in the UNITED KINGDOM in 1884, with of the strength.

Women, 9,206.				Children, 16,319.			
Attacks of Illness.	Deaths.	Ratios per 1,000.		Attacks of Illness.	Deaths.	Ratios per 1,000.	
		Attacks.	Deaths.			Attacks.	Deaths.
—	—	—	—	7	—	·4	—
32	—	3·5	—	1,354	39	83·0	2·39
10	1	1·1	·11	4	—	·2	—
57	—	6·2	—	240	2	14·7	·12
—	—	—	—	—	—	—	—
30	1	3·3	·11	34	—	2·1	—
—	—	—	—	—	—	—	—
41	4	4·4	·43	372	28	22·8	1·72
170	6	18·5	·65	2,011	69	123·2	4·23
140	—	15·2	—	31	1	1·9	·06
2	—	·2	—	—	—	—	—
17	—	1·8	—	13	4	·8	·24
90	23	9·8	2·50	135	37	8·3	2·28
1	—	·1	—	—	—	—	—
56	2	6·1	·22	22	3	1·3	·18
306	25	33·2	2·72	201	45	12·3	2·76
167	4	18·1	·43	216	97	13·2	5·94
29	—	3·1	—	134	—	8·2	—
8	—	·9	—	19	—	1·2	—
—	—	—	—	1	—	·1	—
76	4	8·2	·43	11	2	·6	·12
8	—	·9	—	44	—	2·7	—
—	—	—	—	—	—	—	—
506	9	55·0	·98	1,802	104	110·4	6·37
789	3	85·7	·33	1,400	69	85·8	4·23
—	—	—	—	—	—	—	—
—	—	—	—	1	—	·1	—
12	1	1·3	·11	6	1	·3	·06
402	9	43·7	·98	10	—	·6	—
13	—	1·4	—	2	3	·1	·18
62	1	6·7	·11	91	7	5·6	·44
79	—	8·6	—	434	1	26·6	·06
529	3	57·5	·33	396	49	24·3	3·00
2	—	·2	—	1	—	·1	—
1	—	·1	—	1	1	·1	·06
56	1	6·1	·11	233	3	14·3	·18
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
3,215	66	349·2	7·17	7,014	451	429·8	27·63

ABSTRACT No. II.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into stationed at GIBRALTAR during the year 1884, with the Ratios per

Orders.	Average Strength, 4,712. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	1	—	—	—	—	—	·16
	Eruptive Fevers { Other	3	—	—	—	—	—	·26
	Continued „ { Enteric	3	1	—	1	1	—	·86
	Continued „ { Other	830	5	—	5	40	—	48·34
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	1	—	—	—	—	—	·07
	Cholera	—	—	—	—	—	—	—
	Other Diseases	3	—	—	—	—	—	·05
	Total	841	6	—	6	41	—	49·74
	Constitutional Group.							
	Rheumatism	171	—	—	—	16	2	15·62
	Primary Syphilis	599	—	—	—	—	—	44·34
	Secondary „	100	—	—	—	8	1	5·09
	Tubercular diseases	26	2	2	4	8	4	3·65
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	2	—	1	1	2	1	·19
	Total	898	2	3	5	34	8	68·89
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	31	1	—	1	6	6	2·59
2	Eye	77	—	—	—	2	3	4·70
3	Ear	39	—	—	—	1	—	1·66
4	Nose	3	—	—	—	—	—	·30
5	Circulatory System	49	1	—	1	21	13	5·76
6	Absorbent „	93	—	—	—	1	—	10·65
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	167	4	—	4	9	4	13·60
9	Digestive „	517	—	—	—	11	2	17·07
10	Urinary System { Gonorrhœa	587	—	—	—	—	—	28·96
	Urinary System { Sequelæ of Gonorr.	43	—	—	—	—	—	2·50
	Urinary System { Other diseases	88	—	—	—	3	1	4·85
11	Generative System	84	—	—	—	—	—	4·03
12	Organs of Locomotion	26	—	—	—	4	4	2·18
13	Cellular Tissue	131	—	—	—	1	—	4·09
14	Cutaneous System	265	—	—	—	1	—	11·96
	III.—*Debility*	57	—	—	—	18	3	7·51
	IV.—*Poisons*	20	—	—	—	—	—	·41
	V.—*Injuries.*							
1	General	1	1	—	1	—	—	·01
2	Local	530	1	—	1	3	2	20·66
3	In action	—	—	—	—	—	—	—
	No appreciable disease	9	—	—	—	—	—	·13
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	4,556	16	3	19	156	46	262·25
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
·2	—	—	—	·03	·2	—	—	—	·02
·6	—	—	—	·06	·8	—	—	—	·05
·6	·21	·21	—	·18	2·8	1·19	·09	—	·29
176·2	1·06	8·48	—	10·26	149·9	·79	1·63	—	8·94
—	—	—	—	—	—	—	—	—	—
·2	—	—	—	·02	59·1	·66	6·90	·57	2·17
—	—	—	—	—	—	—	—	—	—
·6	—	—	—	·01	1·5	·09	—	—	·09
178·4	1·27	8·70	—	10·56	214·3	2·73	8·62	·57	11·56
36·3	—	3·40	·42	3·32	48·6	—	3·56	·57	4·20
127·1	—	—	—	9·41	87·8	—	—	—	8·13
21·2	—	1·70	·21	1·08	12·0	—	·39	·22	·96
5·5	·85	1·70	·85	·77	4·8	1·01	2·64	2·07	·67
—	—	—	—	—	·4	—	—	—	·02
·4	·21	·42	·21	·04	·5	·18	·09	·09	·07
190·5	1·06	7·22	1·70	14·62	154·1	1·19	6·68	2·95	14·05
6·6	·21	1·27	1·27	·55	5·1	·13	1·63	·53	·56
16·4	—	·42	·64	1·00	12·8	—	1·14	·88	·81
8·3	—	·21	—	·35	4·6	—	·44	·48	·26
·6	—	—	—	·06	·5	—	—	—	·02
10·4	·21	4·46	2·76	1·22	7·5	·79	2·95	2·20	·65
19·7	—	·21	—	2·26	21·2	—	·22	·09	2·01
—	—	—	—	—	·2	—	·04	·04	·04
35·5	·85	1·91	·85	2·89	34·7	·66	2·11	·79	2·63
109·7	—	2·33	·42	3·62	91·3	·48	1·67	1·14	3·86
124·6	—	—	—	6·15	84·1	—	—	—	5·28
9·1	—	—	—	·53	5·8	—	—	·04	·35
18·7	—	·64	·21	1·03	9·8	·13	·66	·31	·67
17·8	—	—	—	·85	14·9	—	·09	·09	·99
5·5	—	·85	·85	·46	4·7	—	·75	·88	·41
27·8	—	·21	—	·87	24·8	—	·22	·13	1·23
56·3	—	·21	—	2·54	43·1	—	·13	·09	2·05
12·1	—	3·82	·64	1·59	11·0	—	4·13	1·41	·82
4·3	—	—	—	·09	5·8	·04	—	—	·18
·2	·21	—	—	—	—	·31	—	—	·01
112·5	·21	·64	·42	4·38	79·4	·48	1·06	·92	3·48
—	—	—	—	—	—	—	—	—	—
1·9	—	—	—	·03	1·3	—	—	—	·06
—	—	—	—	—	—	—	—	—	—
966·9	4·03	33·10	9·76	55·65	831·0	6·94	32·54	13·54	51·98
737·4	6·93	28·83	13·94	44·22	—	—	—	—	—

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ratios for the six years, 1879 to 1884, will be given in the Report for 1885.

ABSTRACT No. III.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into stationed at MALTA during the year 1884, with the Ratios per

Orders.	Average Strength, 4,637.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	4	—	—	—	—	—	·45
	Continued „ { Enteric -	94	22	—	22	9	—	22·19
	Continued „ { Other -	531	—	—	—	5	—	32·62
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	99	1	—	1	11	—	12·14
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	9	—	—	—	—	—	·36
	Total - -	737	23	—	23	25	—	67·76
	Constitutional Group.							
	Rheumatism - -	160	—	—	—	5	2	10·61
	Primary Syphilis - -	209	—	—	—	—	—	18·97
	Secondary „ - -	131	—	—	—	1	—	9·79
	Tubercular diseases - -	47	4	1	5	26	13	6·92
	Scurvy and Purpura -	—	—	—	—	1	1	·33
	Other Diseases - -	26	1	—	1	2	—	3·33
	Total - -	573	5	1	6	35	16	49·95
	II.—Local Diseases.							
	Diseases of the—							
1	Nervous System - -	83	—	—	—	11	12	7·27
2	Eye - - - - -	70	—	—	—	5	5	4·74
3	Ear - - - - -	48	—	—	—	7	5	3·32
4	Nose - - - - -	2	—	—	—	—	—	·10
5	Circulatory System - -	139	—	1	—	33	26	12·11
6	Absorbent „ - -	16	—	—	—	—	—	1·55
7	Ductless glands - -	1	—	—	—	—	—	·27
8	Respiratory System - -	173	3	—	3	4	2	16·15
9	Digestive „ - -	518	1	—	2	6	5	20·13
10	Urinary System { Gonorrhœa -	199	—	—	—	—	—	14·76
	Urinary System { Sequelæ of Gonorr.	42	—	—	—	—	—	1·83
	Urinary System { Other diseases -	64	2	—	2	2	1	1·91
11	Generative System - -	50	—	—	—	—	—	3·44
12	Organs of Locomotion -	26	—	—	—	2	1	1·98
13	Cellular Tissue - -	181	—	—	—	1	—	8·44
14	Cutaneous System - -	377	—	—	—	3	2	17·94
	III.—*Debility* -	48	—	—	—	4	4	4·29
	IV.—*Poisons* -	31	2	—	2	—	—	·76
	V.—*Injuries.*							
1	General - - -	2	2	—	2	—	—	·48
2	Local - - -	492	3	—	3	3	4	19·16
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	25	—	—	—	—	—	·59
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	3,897	41	2	43	141	83	258·93
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average

Hospital, Deaths, Numbers Invalided and Constantly Sick among the Troops 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·1	·04	—	—	·01
·9	—	—	—	·10	3·9	—	—	—	·15
20·3	4·74	1·94	—	4·78	14·9	3·08	·18	—	2·79
114·5	—	1·08	—	7·03	147·5	·13	·51	—	6·34
—	—	—	—	—	—	—	—	—	—
21·3	·22	2·37	—	2·62	7·9	·34	·26	·34	·71
—	—	—	—	—	·1	—	—	—	·01
1·9	—	—	—	·08	5·5	·09	—	—	·29
158·9	4·96	5·39	—	14·61	179·9	3·68	·90	·34	10·30
34·5	—	1·08	·43	2·29	32·4	·09	1·76	·47	2·51
45·1	—	—	—	4·09	35·9	·04	—	—	3·07
28·3	—	·22	—	2·11	9·8	—	·64	·39	·82
10·1	1·08	5·61	2·80	1·49	7·5	1·54	3·51	2·19	1·29
—	—	·22	·22	·07	·2	·04	—	—	·04
5·6	·22	·43	—	·72	2·0	·09	·17	·13	·21
123·6	1·29	7·55	3·45	10·77	87·8	1·80	6·08	3·17	7·94
17·9	—	2·37	2·58	1·57	12·4	·56	3·99	·64	1·30
15·1	—	1·08	1·08	1·02	19·7	—	1·50	·90	1·24
10·4	—	1·51	1·08	·72	10·7	—	1·33	1·07	·92
·4	—	—	—	·02	·7	—	—	—	·03
30·0	—	7·11	5·61	2·61	13·8	·64	3·34	2·23	1·46
3·4	—	—	—	·34	4·6	—	—	—	·39
·2	—	—	—	·06	·2	—	—	—	·02
37·3	·65	·86	·43	3·48	39·0	·73	2·10	·90	3·31
111·7	·43	1·29	1·08	4·34	133·4	·56	1·67	·64	5·17
42·9	—	—	—	3·18	66·0	—	—	—	3·99
9·1	—	—	—	·40	9·0	—	·13	·13	·64
13·8	·43	·43	·22	·41	10·1	—	·13	·09	·56
10·8	—	—	—	·74	10·2	—	·04	·09	·70
5·6	—	·43	·22	·43	6·1	—	·81	·56	·67
39·0	—	·22	—	1·82	27·7	—	·17	—	1·30
81·3	—	·65	·43	3·87	74·3	—	·64	—	4·10
10·4	—	·86	·86	·93	18·8	·04	3·90	1·29	1·97
6·7	·43	—	—	·16	5·8	·13	—	—	·14
·4	·43	—	—	·10	·9	·56	—	—	·06
106·1	·65	·65	·86	4·13	105·9	·77	·60	·56	4·96
—	—	—	—	—	—	—	—	—	—
5·4	—	—	—	·13	3·7	—	—	—	·12
—	—	—	—	—	—	—	—	—	—
840·4	9·27	30·41	17·89	55·84	840·7	9·47	27·34	12·60	51·29
860·5	9·72	29·23	16·11	47·93	—	—	—	—	—

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. IIIa.—Table showing the Average Strength, Admissions into Malta Fencible Artillery Troops stationed at Malta during the Year 1884,

Orders.	Average Strength, 847.	Admissions into Hospital.	Deaths.			Invalids.		Average Number Constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Others	—	—	—	—	—	—	—
	Continued „ { Enteric	—	—	—	—	—	—	—
	Continued „ { Others	33	—	—	—	—	—	·95
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	—	—	—	—	—	—	—
	Cholera	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	33	—	—	—	—	—	·95
	Constitutional Group.							
	Rheumatism	12	—	—	—	—	—	·49
	Primary Syphilis	—	—	—	—	—	—	—
	Secondary „	—	—	—	—	—	—	—
	Tubercular diseases	—	—	—	—	—	—	—
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other diseases	1	—	—	—	—	—	·06
	Total	13	—	—	—	—	—	·55
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	2	—	—	—	—	2	·32
2	Eye	5	—	—	—	—	—	·10
3	Ear	3	—	—	—	—	—	·07
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	4	—	—	—	—	1	·30
6	Absorbent „	1	—	—	—	—	—	·03
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	37	—	—	—	—	—	1·13
9	Digestive „	43	—	—	—	—	—	1·17
10	Urinary System { Gonorrhœa	6	—	—	—	—	—	·44
	Urinary System { Sequelæ of Gonorr.	—	—	—	—	—	—	—
	Urinary System { Other diseases	1	—	—	—	—	—	·01
11	Generative System	4	—	—	—	—	—	·20
12	Organs of Locomotion	3	—	—	—	—	—	·28
13	Cellular Tissue	4	—	—	—	—	—	·24
14	Cutaneous System	21	—	—	—	—	—	·56
	III.—*Debility*	4	—	—	—	—	1	·22
	IV.—*Poisons*	—	—	—	—	—	—	—
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	44	—	—	—	—	—	1·12
3	In action	—	—	—	—	—	—	—
	No appreciable disease	1	—	—	—	—	—	·01
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	229	—	—	—	—	4	7·70
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the ROYAL with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·3	—	—	—	·09
—	—	—	—	—	1·2	—	—	—	·07
95·1	—	—	—	2·74	123·0	—	—	—	2·59
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	17·1	1·18	—	—	·98
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·6	—	—	—	·01
95·1	—	—	—	2·74	144·2	1·18	—	—	3·74
34·6	—	—	—	1·41	19·4	—	—	2·35	·90
—	—	—	—	—	7·0	—	—	—	·46
—	—	—	—	—	6·5	—	—	—	·55
—	—	—	—	—	11·8	2·94	—	3·53	1·47
—	—	—	—	—	—	—	—	—	—
2·9	—	—	—	·17	6·5	—	—	—	·33
37·5	—	—	—	1·58	51·2	2·94	—	5·88	3·71
5·8	—	—	5·76	·92	5·9	1·18	—	2·35	·53
14·4	—	—	—	·29	21·2	—	—	2·35	·41
8·7	—	—	—	·20	4·1	—	—	—	·10
—	—	—	—	—	—	—	—	—	—
11·5	—	—	2·88	·87	8·2	1·18	—	4·71	·71
2·9	—	—	—	·08	2·9	—	—	—	·13
—	—	—	—	—	·6	—	—	—	·04
106·6	—	—	—	3·26	67·1	·59	—	1·18	3·45
123·9	—	—	—	3·37	84·2	·59	—	2·35	2·47
17·2	—	—	—	1·27	31·2	—	—	—	2·02
—	—	—	—	—	1·2	—	—	—	·06
2·9	—	—	—	·03	1·2	—	—	—	·02
11·5	—	—	—	·58	5·9	—	—	—	·34
8·7	—	—	—	·81	2·3	—	—	·59	·16
11·5	—	—	—	·69	6·5	—	—	—	·25
60·5	—	—	—	1·61	65·3	—	—	1·18	1·87
11·5	—	—	2·88	·63	15·9	—	—	5·89	·85
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	·59	—	—	—
126·8	—	—	—	3·23	96·5	—	—	—	2·39
—	—	—	—	—	—	—	—	—	—
2·9	—	—	—	·03	·6	—	—	—	·02
—	—	—	—	—	—	—	—	—	—
659·9	—	—	11·52	22·19	616·2	8·24	—	26·48	23·27
671·4	6·76	—	23·25	26·12	—	—	—	—	—

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. IV.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed at CYPRUS during the Year 1884, with the Ratios per

Orders.	Average Strength, 495.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number Constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	—	—	—	—	—	—	—
	Continued „ - { Enteric -	2	1	—	1	—	—	·30
	Continued „ - { Other -	103	—	—	—	—	—	2·32
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	24	—	—	—	—	—	·41
	Cholera - - -	—	—	—	—	—	—	—
	Other diseases - -	—	—	—	—	—	—	—
	Total - -	129	1	—	1	—	—	3·03
	Constitutional Group.							
	Rheumatism - - -	1	—	—	—	—	—	·03
	Primary Syphilis - -	38	—	—	—	—	—	3·01
	Secondary „ - -	11	—	—	—	—	—	·63
	Tubercular diseases - -	1	—	1	1	1	1	·31
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other diseases - -	—	—	—	—	—	—	—
	Total - -	51	—	1	1	1	1	3·98
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	2	—	—	—	5	1	·37
2	Eye - - - - -	3	—	—	—	1	—	·10
3	Ear - - - - -	5	—	—	—	—	—	·16
4	Nose - - -	—	—	—	—	—	—	—
5	Circulatory System - -	3	1	—	1	2	2	·65
6	Absorbent „ - -	—	—	—	—	—	—	—
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	6	2	—	2	1	1	·52
9	Digestive „ - -	40	2	—	2	2	—	1·40
10	Urinary System { Gonorrhœa -	48	—	—	—	—	—	2·30
	Urinary System { Sequelæ of Gonorr.	1	—	—	—	—	—	·08
	Urinary System { Other diseases -	4	—	—	—	—	—	·14
11	Generative System - -	5	—	—	—	—	—	·21
12	Organs of Locomotion -	4	—	—	—	—	—	·22
13	Cellular Tissue - -	7	—	—	—	—	—	·24
14	Cutaneous System - -	22	—	—	—	1	—	1·07
	III.—*Debility* -	2	—	—	—	4	—	·16
	IV.—*Poisons* -	2	1	—	1	—	—	·03
	V.—*Injuries.*							
1	General - - -	—	—	—	—	—	—	—
2	Local - - -	39	—	—	—	—	1	1·07
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	373	7	1	8	17	6	15·73
	Average of 6 years, 1878–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·4	—	—	—	·01
4·0	2·02	—	—	·60	8·8	1·15	·38	—	1·43
208·1	—	—	—	4·69	62·1	—	—	—	1·45
—	—	—	—	—	—	—	—	—	—
48·5	—	—	—	·83	230·2	2·68	5·36	1·53	6·91
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
260·6	2·02	—	—	6·12	301·5	3·83	5·74	1·53	9·80
2·0	—	—	—	·06	28·0	—	1·53	·38	1·68
76·8	—	—	—	6·08	71·3	—	—	—	5·16
22·2	—	—	—	1·27	40·2	—	1·15	·38	2·97
2·0	2·02	2·02	2·02	·63	1·9	—	·38	1·92	·14
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·7	—	·38	—	·19
103·0	2·02	2·02	2·02	8·04	142·1	—	3·44	2·68	10·14
4·0	—	10·10	2·02	·75	9·6	·77	1·15	·38	·50
6·1	—	2·02	—	·20	23·0	—	1·15	·77	·90
10·1	—	—	—	·32	2·7	—	—	—	·19
—	—	—	—	—	—	—	—	—	—
6·1	2·02	4·04	4·04	1·31	7·3	·38	1·53	1·92	·59
—	—	—	—	—	5·4	—	—	—	·44
—	—	—	—	—	—	—	—	—	—
12·1	4·04	2·02	2·02	1·05	28·3	·38	1·15	·77	1·25
80·8	4·04	4·04	—	2·83	147·9	1·92	2·30	1·53	4·84
97·0	—	—	—	4·65	68·2	—	—	—	4·10
2·0	—	—	—	·16	12·3	—	—	—	·87
8·1	—	—	—	·28	3·4	·38	—	·38	·13
10·1	—	—	—	·43	8·8	—	—	—	·48
8·1	—	—	—	·45	4·6	—	·38	·38	·19
14·2	—	—	—	·48	18·8	—	·77	·38	·98
44·4	—	2·02	—	2·16	67·1	—	·77	—	2·46
4·0	—	8·08	—	·32	14·6	—	3·45	5·36	1·32
4·0	2·02	—	—	·06	6·5	1·15	—	—	·15
—	—	—	—	—	·7	·38	—	—	·03
78·8	—	—	2·02	2·16	98·9	·77	1·15	1·15	4·06
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·7	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
753·5	16·16	34·34	12·12	31·77	972·4	9·96	22·98	17·24	43·46
1846·2	17·69	55·65	18·26	89·04	—	—	—	—	—

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ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. V.—**Table** showing the **Average Strength, Admissions** into stationed in **Canada** during the Year 1884, with the Ratios per

Orders.	Average Strength, 1,265.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	* Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers Small-pox	—	—	—	—	—	—	—
	Other -	3	—	—	—	—	—	·29
	Continued „ Enteric -	2	—	—	—	—	—	·48
	Other -	10	—	—	—	—	—	·70
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	4	—	—	—	—	—	·11
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	6	—	—	—	—	—	·27
	Total - -	25	—	—	—	—	—	1·85
	Constitutional Group.							
	Rheumatism - -	78	–	—	—	1	—	7·94
	Primary Syphilis - -	101	—	—	—	—	—	7·53
	Secondary „ - -	36	—	—	—	1	1	3·98
	Tubercular diseases - -	8	1	—	1	3	6	·81
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other Diseases - -	1	—	—	—	1	1	·16
	Total - -	224	1	—	1	6	8	20·42
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	14	—	—	—	5	1	1·59
2	Eye - - - - -	27	—	—	—	—	3	1·48
3	Ear - - - - -	13	—	—	—	2	1	·85
4	Nose - - - -	2	—	—	—	—	—	·07
5	Circulatory System - -	13	—	—	—	—	3	1·52
6	Absorbent „ - -	24	—	—	—	—	—	2·02
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	78	1	—	1	4	2	7·83
9	Digestive „ - -	143	—	—	—	—	—	4·52
10	Urinary System Gonorrhœa -	156	—	—	—	—	—	8·84
	Sequelæ of Gonorr.	10	—	—	—	—	—	·65
	Other diseases -	12	1	—	1	4	2	1·50
11	Generative System - -	8	—	—	—	—	2	·15
12	Organs of Locomotion -	9	—	—	—	1	1	·45
13	Cellular Tissue - -	21	—	—	—	—	—	·80
14	Cutaneous System - -	73	—	—	—	—	—	3·75
	III.—*Debility* -	15	—	—	—	3	2	1·48
	IV.—*Poisons* -	8	1	—	1	—	—	·13
	V.—*Injuries.*							
1	General - - -	—	2	—	2	—	—	—
2	Local - - -	107	2	—	2	1	1	4·35
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	3	—	—	—	—	—	·03
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	985	8	—	8	26	26	64·28
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
2·4	—	—	—	·23	3·2	—	—	—	·22
1·6	—	—	—	·38	·9	—	—	—	·09
7·9	—	—	—	·55	7·1	·11	—	—	·23
—	—	—	—	—	—	—	—	—	—
3·2	—	—	—	·09	52·7	—	3·20	—	1·40
—	—	—	—	—	—	—	—	—	—
4·7	—	—	—	·21	3·7	·11	—	—	·18
19·8	—	—	—	1·46	67·6	·23	3·20	—	2·12
61·7	—	·79	—	6·28	43·6	·11	2·06	·69	3·27
79·8	—	—	—	5·95	80·3	—	—	—	6·52
28·5	—	·79	·79	3·15	44·4	—	1·14	1·26	3·04
6·3	·79	2·37	4·74	·64	9·0	1·61	3·89	4·00	1·26
—	—	—	—	—	—	—	—	—	—
·8	—	·79	·79	·12	1·5	·11	·46	·11	·10
177·1	·79	4·74	6·32	16·14	178·8	1·83	7·55	6·06	14·19
11·1	—	3·95	·79	1·26	8·8	·11	2·40	·92	·90
21·3	—	—	2·37	1·17	13·4	—	1·14	1·37	·86
10·3	—	1·58	·79	·67	5·3	—	·34	·80	·28
1·6	—	—	—	·06	·7	—	·11	·11	·04
10·3	—	—	2·37	1·20	16·6	1·14	4·00	4·81	1·08
19·0	—	—	—	1·60	20·8	—	—	·11	1·79
—	—	—	—	—	—	—	—	—	—
61·7	·79	3·16	1·58	6·19	63·0	·57	2·98	·80	2·59
113·0	—	—	—	3·57	110·8	·46	·92	1·26	3·06
123·3	—	—	—	6·99	83·8	—	—	—	4·52
7·9	—	—	—	·51	11·4	—	—	·23	·62
9·5	·79	3·16	1·58	1·19	14·7	·12	1·37	1·03	·63
6·3	—	—	1·58	·12	10·7	—	·23	·23	·62
7·1	—	·79	·79	·36	4·6	—	1·72	1·14	·43
16·6	—	—	—	·63	11·7	—	·11	—	·50
57·7	—	—	—	2·96	42·0	—	·11	·11	1·51
11·8	—	2·37	1·58	1·17	7·3	—	2·40	1·72	·56
6·3	·79	—	—	·10	21·3	·23	—	—	·73
—	1·58	—	—	—	—	·46	—	—	—
84·6	1·58	·79	·79	3·44	108·5	—	·92	·57	3·79
—	—	—	—	—	—	—	—	—	—
2·4	—	—	—	·02	1·8	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
778·7	6·32	20·55	20·55	50·81	803·6	5·14	29·50	21·27	40·86
706·1	5·67	24·18	16·72	34·54	—	—	—	—	—

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. VI.—Table showing the Average Strength, Admissions into Troops stationed at Bermuda during the Year 1884, with the Ratios

Orders.	Average Strength, 1,551.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I. *General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	—	—	—	—	—	—	—
	Continued „ { Enteric	62	10	—	10	—	—	5·23
	Continued „ { Other	48	—	—	—	—	—	2·79
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	1	—	—	—	—	—	·06
	Cholera	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	111	10	—	10	—	—	8·08
	Constitutional Group.							
	Rheumatism	54	—	—	—	—	1	3·33
	Primary Syphilis	52	—	—	—	—	—	4·61
	Secondary „	40	—	—	—	—	—	2·56
	Tubercular diseases	8	—	1	1	—	—	1·94
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other diseases	2	—	—	—	—	—	·04
	Total	156	—	1	1	—	1	12·48
	II. *Local Diseases.*							
	Diseases of the—							
1	Nervous System	13	—	—	—	—	—	2·63
2	Eye	17	—	—	—	—	—	·56
3	Ear	8	—	—	—	—	—	·12
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	6	1	—	1	—	2	·21
6	Absorbent „	35	—	—	—	—	—	3·52
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	47	1	—	1	—	—	2·00
9	Digestive „	188	—	—	—	—	—	5·47
10	Urinary System { Gonorrhœa	29	—	—	—	—	—	1·85
	Urinary System { Sequelæ of Gonorr.	10	—	—	—	—	—	·47
	Urinary System { Other diseases	9	—	—	—	—	1	·62
11	Generative System	11	—	—	—	—	—	1·09
12	Organs of Locomotion	12	—	—	—	—	—	·57
13	Cellular Tissue	46	—	—	—	—	—	1·54
14	Cutaneous System	103	—	—	—	—	—	3·68
	III.—*Debility*	10	—	—	—	—	—	·40
	IV.—*Poisons*	16	1	—	1	—	—	·62
	V.—*Injuries.*							
1	General	—	3	—	3	—	—	—
2	Local	128	—	—	—	—	—	4·14
3	In action	—	—	—	—	—	—	—
	No appreciable disease	3	—	—	—	—	—	·20
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	958	16	1	17	—	4	50·25
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·5	—	—	—	·06
40·0	6·45	—	—	3·37	9·9	1·91	—	—	1·28
30·9	—	—	—	1·80	31·3	—	—	—	1·19
—	—	—	—	—	—	—	—	—	—
·6	—	—	—	·04	1·9	—	·12	—	·17
—	—	—	—	—	·1	·12	—	—	—
—	—	—	—	—	1·8	—	—	—	·13
71·5	6·45	—	—	5·21	45·5	2·03	·12	—	2·83
34·8	—	—	·64	2·15	24·9	—	1·07	·59	1·52
33·5	—	—	—	2·97	40·5	—	—	—	3·30
25·8	—	—	—	1·65	10·5	—	·36	·24	·84
5·2	·64	—	—	1·25	7·8	1·19	3·45	2·62	1·56
—	—	—	—	—	·1	—	—	—	·01
1·3	—	—	—	·03	1·7	·12	·24	·12	·13
100·6	·64	—	·64	8·05	85·5	1·31	5·12	3·57	7·36
8·4	—	—	—	1·70	9·9	·83	1·43	·36	·75
11·0	—	—	—	·36	10·8	—	·71	·83	·70
5·2	—	—	—	·08	7·6	—	·48	·48	·46
—	—	—	—	—	·3	—	·12	—	·02
3·9	·64	—	1·29	·13	13·0	·12	2·50	1·79	1·45
22·6	—	—	—	2·27	24·9	—	·12	—	3·06
—	—	—	—	—	·1	—	—	—	·02
30·3	·64	—	—	1·29	35·1	·12	·71	·36	1·97
121·2	—	—	—	3·53	131·2	·59	·95	·71	3·82
18·7	—	—	—	1·19	24·3	—	—	—	1·38
6·4	—	—	—	·30	3·6	—	·24	—	·41
5·8	—	—	·64	·40	8·2	—	·59	·36	·53
7·1	—	—	—	·70	8·6	—	·12	·12	·38
7·7	—	—	—	·37	4·2	·12	·48	·48	·28
29·7	—	—	—	·99	24·2	—	·12	—	·92
66·4	—	—	—	2·37	60·0	—	·48	·48	2·44
6·4	—	—	—	·26	17·4	—	1·79	1·79	1·39
10·3	·64	—	—	·40	9·3	·48	—	—	·37
—	—	—	—	—	—	·71	—	—	—
82·5	1·93	—	—	2·67	125·3	·48	·71	·71	4·87
—	—	—	—	—	—	—	—	—	—
1·9	—	—	—	·13	1·2	·24	—	—	·04
—	—	—	—	—	—	—	—	—	—
617·6	10·96	—	2·57	32·40	650·2	7·03	16·79	12·03	35·45
631·1	7·50	19·34	12·34	33·96	—	—	—	—	—

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ratios for the six years, 1879 to 1884, will be given in the Report for 1885.

ABSTRACT No. VII.—TABLE showing the AVERAGE STRENGTH, the ADMISSIONS into
TROOPS stationed at WEST INDIES, during the Year 1884, with the

Orders.	Average Strength, 970.	Admissions into Hospital.	Deaths.			Invalids.		Average Number Constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	—	—	—	—	—	—	—
	Continued „ { Enteric	5	—	—	—	—	—	·60
	Continued „ { Other	39	—	—	—	—	—	1·08
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	9	—	—	—	—	1	·59
	Cholera	—	—	—	—	—	—	—
	Other Diseases	1	—	—	—	—	—	·06
	Total	54	—	—	—	—	1	2·33
	Constitutional Group.							
	Rheumatism	28	—	—	—	—	—	1·34
	Primary Syphilis	73	—	—	—	—	—	7·10
	Secondary „	20	—	—	—	1	—	1·69
	Tubercular Diseases	6	2	—	2	3	2	1·09
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	2	—	—	—	—	—	·29
	Total	129	2	—	2	4	2	11·51
	II.—Local Diseases.							
	Diseases of the—							
1	Nervous System	10	—	—	—	5	4	1·34
2	Eye	9	—	—	—	—	—	·30
3	Ear	12	—	—	—	—	—	·46
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	16	2	—	2	6	2	1·67
6	Absorbent „	13	—	—	—	—	—	2·14
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	17	3	—	3	1	1	·63
9	Digestive „	97	1	—	1	1	—	2·73
10	Urinary System { Gonorrhœa	77	—	—	—	—	—	4·47
	Urinary System { Sequelæ of Gonorr.	4	—	—	—	1	—	·39
	Urinary System { Other Diseases	11	—	1	1	1	—	1·10
11	Generative System	9	—	—	—	—	—	·24
12	Organs of Locomotion	4	—	—	—	1	—	·39
13	Cellular Tissue	31	—	—	—	—	—	1·05
14	Cutaneous System	68	—	—	—	—	—	1·99
	III.—*Debility*	18	—	—	—	6	2	1·21
	IV.—*Poisons*	6	—	—	—	—	—	·15
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	141	2	—	2	1	1	4·53
3	In action	—	—	—	—	—	—	—
	No appreciable disease	1	—	—	—	—	—	·02
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	727	10	1	11	27	13	38·65
	Average for 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED, and CONSTANTLY SICK among the WHITE
Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·5	—	—	—	·03
5·1	—	—	—	·62	3·7	1·62	—	—	·29
40·2	—	—	—	1·11	157·1	—	3·70	—	5·29
—	—	—	—	—	15·7	9·93	—	—	·40
9·3	—	—	1·03	·61	48·8	3·70	1·38	—	2·23
—	—	—	—	—	·2	—	—	—	·01
1·0	—	—	—	·06	1·4	—	—	—	·06
55·6	—	—	1·03	2·40	227·4	15·25	5·08	—	8·31
28·9	—	—	—	1·38	39·0	—	·93	1·16	1·99
75·3	—	—	—	7·32	46·0	—	—	—	2·93
20·6	—	1·03	—	1·74	14·1	—	·46	—	1·17
6·2	2·06	3·09	2·06	1·13	7·6	·69	4·85	2·77	1·98
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·29	·7	—	—	—	·03
133·0	2·06	4·12	2·06	11·86	107·4	·69	6·24	3·93	8·10
10·3	—	5·15	4·12	1·38	17·6	·69	5·32	2·31	1·76
9·3	—	—	—	·31	10·2	—	1·62	1·39	·70
12·4	—	—	—	·47	11·6	—	·69	1·39	·51
—	—	—	—	—	·2	—	—	—	·01
16·5	2·06	6·19	2·06	1·72	14·3	·46	3·24	2·54	1·56
13·4	—	—	—	2·21	20·8	—	—	—	1·65
—	—	—	—	—	—	—	—	—	—
17·5	3·09	1·03	1·03	·65	25·2	·69	·46	·69	1·82
100·0	1·03	1·03	—	2·81	124·1	1·62	1·62	1·16	4·15
79·4	—	—	—	4·61	56·6	—	—	—	2·76
4·1	—	1·03	—	·40	14·8	—	—	—	1·05
11·3	1·03	1·03	—	1·14	12·0	—	—	—	·32
9·3	—	—	—	·25	18·0	—	—	·46	·74
4·1	—	1·03	—	·40	9·0	—	1·39	·46	·95
32·0	—	—	—	1·08	17·3	—	—	—	·65
70·1	—	—	—	2·05	61·0	—	·46	·46	2·23
18·6	—	6·19	2·06	1·25	27·5	—	8·78	2·08	2·02
6·2	—	—	—	·16	8·1	·46	—	—	·20
—	—	—	—	—	·2	·46	·23	—	·09
145·4	2·06	1·03	1·03	4·67	119·3	·93	·69	·69	4·27
—	—	—	—	—	—	—	—	—	—
1·0	—	—	—	·02	·5	—	—	—	·01
—	—	—	—	—	—	—	—	—	—
749·5	11·33	27·83	13·39	39·84	903·1	21·26	35·82	17·56	43·86
945·2	15·98	26·93	14·84	45·39	—	—	—	—	—

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ratios for the six years, 1879 to 1884, will be given in the Report for 1885.

ABSTRACT No. VIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
TROOPS stationed in the WEST INDIES,* during the year 1884, with the

Orders.	Average Strength, 1,150.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	6	—	—	—	—	—	·17
	Continued „ { Enteric	—	—	—	—	—	—	—
	Continued „ { Other	43	—	—	—	—	—	1·20
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	68	4	—	4	—	—	2·60
	Cholera	—	—	—	—	—	—	—
	Other diseases	23	—	—	—	—	—	·34
	Total	140	4	—	4	—	—	4·31
	Constitutional Group.							
	Rheumatism	50	—	—	—	—	3	4·16
	Primary Syphilis	181	—	—	—	—	—	17·23
	Secondary „	13	—	—	—	—	3	1·75
	Tubercular Diseases	7	2	—	2	—	4	·81
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	251	2	—	2	—	10	23·95
	II. *Local Diseases.*							
	Diseases of the—							
1	Nervous System	14	—	—	—	—	5	2·48
2	Eye	19	—	—	—	—	2	1·71
3	Ear	2	—	—	—	—	—	·06
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	26	5	—	5	—	3	2·50
6	Absorbent „	39	—	—	—	—	1	2·94
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	45	1	—	1	—	1	3·92
9	Digestive „	75	—	—	—	—	2	3·34
10	Urinary System { Gonorrhœa	156	—	—	—	—	—	9·43
	Urinary System { Sequelæ of Gonorr.	20	—	—	—	—	—	1·00
	Urinary System { Other diseases	6	—	—	—	—	—	·17
11	Generative System	27	—	—	—	—	1	1·30
12	Organs of Locomotion	17	—	—	—	—	4	1·30
13	Cellular Tissue	40	—	—	—	—	—	1·63
14	Cutaneous System	55	—	—	—	—	1	3·74
	III.—*Debility*	1	—	—	—	—	—	1·02
	IV.—*Poisons*	—	—	—	—	—	—	—
	V.—*Injuries.*							
1	General	—	1	—	1	—	—	—
2	Local	130	—	—	—	—	1	4·39
3	In action	—	—	—	—	—	—	—
	No appreciable disease	2	—	—	—	—	—	·17
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	1,065	13	—	13	—	31	69·56
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the BLACK
Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000, from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
5·2	—	—	—	·15	10·1	—	—	—	·40
—	—	—	—	—	·2	—	—	—	—
37·4	—	—	—	1·04	62·2	—	—	—	2·14
—	—	—	—	—	·2	·18	—	—	—
59·1	3·47	—	—	2·26	149·3	1·48	—	·18	3·97
—	—	—	—	—	—	—	—	—	—
20·0	—	—	—	·29	·9	—	—	—	·02
121·7	3·47	—	—	3·74	222·9	1·66	—	·18	6·53
43·5	—	—	2·61	3·62	71·6	—	—	4·61	3·84
157·4	—	—	—	14·98	124·0	—	—	—	3·96
11·3	—	—	2·61	1·52	29·0	·37	—	5·54	3·45
6·1	1·74	—	3·47	·70	13·3	5·17	—	7·20	2·01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·6	·18	—	·37	·22
218·3	1·74	—	8·69	20·82	240·5	5·72	—	17·72	18·48
12·2	—	—	4·35	2·15	17·3	·56	—	4·62	1·38
16·5	—	—	1·74	1·48	17·9	—	—	·37	·81
1·7	—	—	—	·05	2·2	—	—	—	·15
—	—	—	—	—	·2	—	—	—	·09
22·6	4·35	—	2·61	2·17	17·3	2·03	—	4·98	1·40
33·9	—	—	·87	2·55	24·2	—	—	—	1·96
—	—	—	—	—	—	—	—	—	—
39·1	·87	—	·87	3·48	58·7	1·48	—	1·66	3·77
65·2	—	—	1·74	2·90	97·3	2·58	—	·92	4·93
135·7	—	—	—	8·20	120·9	—	—	—	6·80
17·4	—	—	—	·87	22·5	—	—	·18	1·73
5·2	—	—	—	·14	7·2	·73	—	·56	·31
23·5	—	—	·87	1·13	25·3	—	—	1·29	1·62
14·8	—	—	3·48	1·13	10·1	—	—	1·85	·77
34·8	—	—	—	1·59	23·4	—	—	·18	1·14
47·8	—	—	·87	3·25	80·7	—	—	·37	3·35
·9	—	—	—	·88	14·4	·37	—	6·46	1·26
—	—	—	—	—	·2	—	—	—	·03
—	·87	—	—	—	—	·37		—	—
113·1	—	—	·87	3·81	87·9	·37	—	1·66	3·51
—	—	—	—	—	—	—	—	—	—
1·7	—	—	—	·15	1·7	—	—	—	·08
—	—	—	—	—	—	—	—	—	—
926·1	11·30	—	26·96	60·49	1092·8	15·87	—	43·00	60·10
1110·5	16·71	—	21·63	59·31	—	—	—	—	—

for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. IX.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed at WEST AFRICA during the year 1884, with the

Orders.	Average Strength, 539.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers Other	2	—	—	—	—	—	·03
	Continued „ Enteric	1	1	—	1	—	—	·06
	Continued „ Other	1	—	—	—	—	—	—
	Yellow Fever	1	1	—	1	—	—	—
	Paroxysmal Fevers	163	1	—	1	—	—	4·39
	Cholera	—	—	—	—	—	—	—
	Other Diseases	—	—	—	—	—	—	—
	Total	168	3	—	3	—	—	4·48
	Constitutional Group.							
	Rheumatism	40	—	—	—	—	—	2·45
	Primary Syphilis	36	—	—	—	—	—	2·91
	Secondary „	23	—	—	—	—	—	1·03
	Tubercular diseases	3	2	—	2	—	—	·57
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	—	—	—	—	—	—	—
	Total	102	2	—	2	—	—	6·96
	II.—Local Diseases.							
	Diseases of the—							
1	Nervous System	9	—	—	—	—	—	·66
2	Eye	12	—	—	—	—	—	·61
3	Ear	5	—	—	—	—	—	·11
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	13	1	—	1	—	—	1·38
6	Absorbent „	14	—	—	—	—	—	1·22
7	Ductless glands	—	—	—	—	—	—	—
8	Respiratory System	37	2	—	2	—	—	2·85
9	Digestive „	72	—	—	—	—	—	4·59
10	Urinary System Gonorrhœa	80	—	—	—	—	—	3·32
	Sequelæ of Gonorr.	19	—	—	—	—	—	2·44
	Other diseases	5	1	—	1	—	—	·31
11	Generative System	6	—	—	—	—	—	·23
12	Organs of Locomotion	8	—	—	—	—	—	·52
13	Cellular Tissue	11	—	—	—	—	—	·42
14	Cutaneous System	67	—	—	—	—	—	3·24
	III.—*Debility*	5	—	—	—	—	—	·84
	IV.—*Poisons*	—	—	—	—	—	—	—
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	55	—	—	—	—	—	2·21
3	In action	—	—	—	—	—	—	—
	No appreciable disease	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	688	9	—	9	—	—	36·39
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·3	—	—	—	·03
3·7	—	—	—	·06	15·2	—	—	—	·62
1·9	1·85	—	—	·11	—	—	—	—	—
1·9	—	—	—	—	1·4	—	—	—	·06
1·9	1·85	—	—	—	·3	·35	—	—	—
302·3	1·85	—	—	8·14	509·5	3·11	—	—	14·70
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	9·3	—	—	—	·43
311·7	5·57	—	—	8·31	536·0	3·46	—	—	15·84
74·2	—	—	—	4·54	74·3	—	—	1·03	4·19
66·8	—	—	—	5·40	113·0	—	—	—	6·57
42·7	—	—	—	1·91	38·0	—	—	3·80	2·40
5·6	3·71	—	—	1·06	24·5	8·98	—	2·42	2·65
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·7	·85	—	—	·09
189·3	3·71	—	—	12·91	251·5	9·33	—	7·25	15·90
16·7	—	—	—	1·22	22·1	1·08	—	·70	1·17
22·3	—	—	—	1·13	28·8	—	—	1·72	1·48
9·3	—	—	—	·20	5·5	—	—	—	·20
—	—	—	—	—	·3	—	—	—	—
24·1	1·85	—	—	2·56	25·2	1·88	—	3·46	2·03
26·0	—	—	—	2·26	16·2	—	—	—	·70
—	—	—	—	—	—	—	—	—	—
68·6	3·71	—	—	5·29	71·2	2·07	—	1·72	2·99
133·6	—	—	—	8·52	136·1	3·46	—	1·08	4·82
148·4	—	—	—	6·16	138·9	—	—	—	5·82
35·2	—	—	—	4·53	18·0	—	—	—	·91
9·3	1·85	—	—	·58	6·6	·69	—	—	·28
11·1	—	—	—	·48	18·0	—	—	—	·80
14·8	—	—	—	·96	18·7	—	—	—	1·27
20·4	—	—	—	·78	32·8	—	—	—	1·09
124·3	—	—	—	6·01	114·7	—	—	—	4·67
9·3	—	—	—	1·56	9·0	—	—	—	·28
—	—	—	—	—	1·7	·35	—	—	·03
—	—	—	—	—	·3	·85	—	—	·01
102·0	—	—	—	4·10	106·7	—	—	·70	3·15
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·1	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
1276·4	16·69	—	—	67·51	1555·4	22·11	—	16·58	63·48
1553·9	21·67	—	16·58	63·48	—	—	—	—	—

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for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. X.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into stationed at the CAPE OF GOOD HOPE and ST. HELENA during the year 1884,

Orders.	Average Strength, 3,157.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I. *General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Other	—	—	—	—	—	—	—
	Continued " { Enteric	53	8	—	8	—	—	7·39
	Other	118	—	—	—	—	—	4·85
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	69	—	—	—	—	—	2·61
	Cholera	—	—	—	—	—	—	—
	Other Diseases	8	1	—	1	—	—	·44
	Total	248	9	—	9	—	—	15·29
	Constitutional Group.							
	Rheumatism	130	—	—	—	8	2	9·27
	Primary Syphilis	281	—	—	—	—	—	28·27
	Secondary "	77	—	—	—	6	2	5·92
	Tubercular Diseases	7	—	1	1	6	4	1·71
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	5	1	—	1	—	—	·11
	Total	500	1	1	2	20	8	45·28
	II. *Local Diseases.*							
	Diseases of the—							
1	Nervous System	28	2	—	2	3	2	1·54
2	Eye	24	—	—	—	2	1	1·52
3	Ear	16	—	—	—	3	6	1·31
4	Nose	1	—	—	—	—	—	·02
5	Circulatory System	88	1	—	1	14	7	3·24
6	Absorbent "	44	—	—	—	—	—	2·77
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	76	3	—	3	1	2	4·23
9	Digestive "	325	2	—	2	7	4	13·00
10	Urinary System { Gonorrhœa	234	—	—	—	—	—	15·01
	Sequelæ of Gonorr.	14	—	—	—	1	—	1·25
	Other diseases	22	2	—	2	1	—	1·10
11	Generative System	22	—	—	—	—	—	1·60
12	Organs of Locomotion	18	—	—	—	6	4	1·62
13	Cellular Tissue	65	—	—	—	—	—	3·13
14	Cutaneous System	115	—	—	—	—	—	6·37
	III. *Debility*	83	—	—	—	16	6	6·53
	IV. *Poisons*	7	—	—	—	—	—	·19
	V. *Injuries.*							
1	General	—	2	—	2	—	—	—
2	Local	260	2	—	2	1	5	14·09
3	In action	—	—	—	—	—	—	—
	No appreciable disease	5	—	—	—	—	—	·15
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	2,145	24	1	25	75	45	139·24
	Average of 10 years, 1874-83	—	--	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios

Hospital, Deaths, Numbers Invalided and Constantly Sick among the Troops with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	·03	—	·14
—	—	—	—	—	·7	—			
16·8	2·53	—	—	2·34	43·9	9·59	8·27	—	9·31
37·4	—	—	—	1·54	97·0	·65			
—	—	—	—	—	—	—	—	—	—
21·9	—	—	—	·82	48·2	·79	4·27	·09	2·22
—	—	—	—	—	—	—	—	—	—
2·5	·32	—	—	·14	2·7	·11	·09	—	·17
78·6	2·85	—	—	4·84	192·5	11·14	12·66	·09	11·84
41·2	—	2·53	·63	2·94	45·0	—	6·40	1·49	2·86
89·0	—	—	—	8·95	40·7	—	—	—	3·55
24·4	—	1·90	·63	1·88	18·9	·03	1·58	·42	1·57
2·2	·32	1·90	1·27	·54	3·5	·73	1·72	1·41	·32
—	—	—	—	—	1·0	—	·09	—	·05
1·6	·32	—	—	·03	2·3	·20	·53	·17	·21
158·4	·63	6·38	2·53	14·34	111·4	·96	10·32	3·49	8·56
8·9	·63	·95	·63	·49	11·6	·65	3·26	·96	·96
7·6	—	·63	·32	·48	11·3	—	1·24	1·04	·75
5·1	—	·95	1·90	·41	4·6	—	·73	·56	·33
·3	—	—	—	·01	·2	·03	—	—	·01
12·0	·32	4·43	2·22	1·03	18·6	·65	8·36	4·55	1·69
13·9	—	—	—	·88	11·0	—	·23	·11	·90
—	—	—	—	—	—	—	—	·03	—
24·1	·95	·32	·63	1·34	38·8	1·13	2·14	1·01	2·81
102·9	·63	2·22	1·27	4·12	170·6	4·08	11·08	2·53	9·82
74·1	—	—	—	4·75	27·4	—	—	—	2·07
4·4	—	·32	—	·39	6·2	—	·25	·09	·42
7·0	·63	·32	—	·35	4·7	·17	·70	·31	·28
7·0	—	—	—	·51	7·6	—	·45	·28	·50
5·7	—	1·90	1·27	·51	5·7	·11	1·27	·90	·46
20·6	—	—	—	·99	17·5	—	·31	·17	·95
36·4	—	—	—	2·02	52·3	—	·56	·23	2·90
26·3	—	5·07	1·90	2·07	36·5	·14	12·86	2·53	2·53
2·2	—	—	—	·06	3·2	·53	—	—	·16
—	·63	—	—	—	·6	1·49	—	—	·02
82·3	·63	·32	1·58	4·46	70·7	·50	2·20	1·60	3·91
—	—	—	—	—	20·1	32·13	8·52	6·16	1·77
1·6	—	—	—	·05	7·3	—	—	—	·03
—	—	—	—	—	—	—	—	—	—
679·4	7·91	23·76	14·25	44·10	825·4	53·71	77·14	26·64	53·17
834·7	40·28	58·02	21·30	50·17	—	—	—	—	—

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for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. XI.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed at MAURITIUS during the Year 1884, with the Ratios per

Orders.	Average Strength, 363.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	—	—	—	—	—	—	—
	Continued „ { Enteric -	6	2	—	2	—	—	·93
	Continued „ { Other -	2	—	—	—	—	—	·17
	Yellow Fever - - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	498	4	—	4	2	—	15·42
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	—	—	—	—	—	—	—
	Total - -	501	6	—	6	2	—	16·52
	Constitutional Group.							
	Rheumatism - - -	19	—	—	—	2	1	1·16
	Primary Syphilis - -	55	—	—	—	—	—	5·30
	Secondary „ - -	8	—	—	—	—	—	·16
	Tubercular diseases - -	—	—	—	—	—	1	—
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other Diseases - -	—	—	—	—	—	—	—
	Total - -	77	—	—	—	2	2	6·62
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	6	—	—	—	3	1	·47
2	Eye - - - -	2	—	—	—	—	—	·20
3	Ear - - - -	3	—	—	—	—	—	·12
4	Nose - - -	—	—	—	—	—	—	—
5	Circulatory System - -	8	—	—	—	3	—	·58
6	Absorbent „ - -	7	—	—	—	—	—	·54
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	10	—	—	—	—	—	·31
9	Digestive „ -	97	1	—	1	2	—	3·79
10	Urinary System { Gonorrhœa -	29	—	—	—	—	—	1·94
	Urinary System { Sequelæ of Gonorr.	5	—	—	—	1	—	·34
	Urinary System { Other diseases -	3	1	—	1	—	—	·24
11	Generative System - -	—	—	—	—	—	—	—
12	Organs of Locomotion -	—	—	—	—	—	—	—
13	Cellular Tissue - -	14	—	—	—	—	—	·41
14	Cutaneous System - -	10	—	—	—	—	—	·30
	III.—*Debility* -	18	—	—	—	4	—	·77
	IV.—*Poisons* -	1	—	—	—	—	—	·03
	V.—*Injuries.*							
1	General - - -	—	—	—	—	—	—	—
2	Local - - -	42	—	—	—	—	—	1·57
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	833	8	—	8	17	3	34·75
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 for 1879–83.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·5	—	—	—	·05
16·5	5·51	—	—	2·56	4·4	2·18	·55	—	·34
5·5	—	—	—	·47	67·7	—	—	—	1·94
—	—	—	—	—	—	—	—	—	—
1358·1	11·02	5·51	—	42·48	1167·1	4·37	23·48	—	33·85
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·5	—	—	—	0·1
1380·1	16·53	5·51	—	45·51	1240·2	6·55	24·03	—	36·19
52·3	—	5·51	2·75	3·20	27·3	—	1·09	1·64	1·90
151·5	—	—	—	14·60	145·8	—	—	—	10·65
8·3	—	—	—	·44	82·5	—	1·64	—	6·36
—	—	—	2·75	—	6·6	·55	2·73	1·64	·88
—	—	—	—	—	1·6	—	—	—	·12
—	—	—	—	—	3·8	—	1·09	·55	·29
212·1	—	5·51	5·51	18·24	267·6	·55	6·55	3·82	20·20
16·5	—	8·26	2·75	1·29	10·9	—	2·73	·55	·86
5·5	—	—	—	·55	9·3	—	—	·55	·66
8·3	—	—	—	·33	18·6	—	—	·55	·89
—	—	—	—	—	—	—	—	—	—
22·0	—	8·26	—	1·60	29·5	1·09	5·46	5·46	2·31
19·8	—	—	—	1·49	47·5	—	—	—	4·44
—	—	—	—	—	—	—	—	—	—
27·6	—	—	—	·85	46·4	—	·55	1·09	2·09
267·2	2·75	5·51	—	10·44	239·2	4·91	2·18	1·64	7·65
79·9	—	—	—	5·34	97·2	—	—	—	5·70
13·8	—	—	—	·94	21·3	—	·55	·55	1·88
8·3	2·75	2·75	—	·66	15·9	·55	·55	—	1·24
—	—	—	—	—	7·7	—	—	—	·62
—	—	—	—	—	4·4	—	·55	·55	·27
38·6	—	—	—	1·13	31·7	—	—	—	1·06
27·5	—	—	—	·83	86·8	—	—	—	2·84
49·6	—	11·02	—	2·12	45·4	—	9·28	3·82	2·17
2·8	—	—	—	·08	7·1	·55	—	—	·18
—	—	—	—	—	1·1	—	1·09	—	·13
115·7	—	—	—	4·33	150·2	·55	1·09	—	4·62
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·5	—	—	—	·01
—	—	—	—	—	—	—	—	—	—
2294·8	22·03	46·83	8·26	95·73	2378·5	14·75	54·61	18·57	96·01
2076·7	16·71	42·29	13·67	72·67	—	—	—	—	—

for the six years, 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. XII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS
TROOPS stationed at CEYLON during the Year 1884, with the Ratios

Orders.	Average Strength, 985.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.*	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	—	—	—	—	—	—	·12
	Continued „ { Enteric	2	2	—	2	—	—	·23
	Continued „ { Other	56	—	—	—	—	—	2·40
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	31	1	—	1	—	—	1·57
	Cholera	—	—	—	—	—	—	—
	Other Diseases	1	—	—	—	—	—	·03
	Total	90	3	—	3	—	—	4·35
	Constitutional Group.							
	Rheumatism	29	—	—	—	—	—	1·72
	Primary Syphilis	195	—	—	—	—	—	14·77
	Secondary „	30	—	—	—	—	1	2·01
	Tubercular diseases	5	—	—	—	4	3	·86
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	1	—	—	—	—	—	·04
	Total	260	—	—	—	4	4	19·40
	II.—Local Diseases.							
	Diseases of the—							
1	Nervous System	14	—	—	—	2	1	·96
2	Eye	17	—	—	—	4	1	1·42
3	Ear	22	—	—	—	2	1	·95
4	Nose	2	—	—	—	—	—	·06
5	Circulatory System	9	—	—	—	—	1	·51
6	Absorbent „	44	—	—	—	—	—	3·19
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	44	1	—	1	1	2	2·79
9	Digestive „	190	5	—	5	8	2	9·85
10	Urinary System { Gonorrhœa	124	—	—	—	—	—	7·57
	Urinary System { Sequelæ of Gonorr.	20	—	—	—	—	—	1·04
	Urinary System { Other diseases	17	—	—	—	—	—	1·03
11	Generative System	14	—	—	—	—	—	·61
12	Organs of Locomotion	6	—	—	—	3	—	·56
13	Cellular Tissue	28	—	—	—	—	—	1·06
14	Cutaneous System	97	—	—	—	—	—	4·40
	III.—*Debility*	24	—	—	—	8	1	2·34
	IV.—*Poisons*	15	—	—	—	—	—	·25
	V.—*Injuries.*							
1	General	—	1	—	1	—	—	—
2	Local	140	1	—	1	—	—	4·05
3	In action	—	—	—	—	—	—	—
	No appreciable disease	3	—	—	—	—	—	·09
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	1,180	11	—	11	32	18	66·48
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	·12	·8	—	—	—	·01
2·0	2·03	—	—	·23	2·9	1·66	—	—	·19
56·9	—	—	—	2·44	90·3	—	—	—	3·02
—	—	—	—	—	—	—	—	—	—
31·5	1·02	—	—	1·60	23·1	·21	·21	—	·83
—	—	—	—	—	·2	—	—	—	—
1·0	—	—	—	0·03	4·0	—	—	—	·13
91·4	3·05	—	—	4·42	121·3	1·87	·21	—	4·18
29·4	—	—	—	1·75	27·5	—	1·04	·83	1·18
198·0	—	—	—	15·00	134·4	—	·21	—	8·25
30·5	—	—	1·02	2·04	28·9	—	2·08	·62	2·33
5·1	—	4·06	3·05	·87	12·7	2·91	5·83	3·33	1·35
—	—	—	—	—	—	—	—	—	—
1·0	—	—	—	·04	1·3	—	—	—	·06
264·0	—	4·06	4·06	19·70	204·8	2·91	9·16	4·78	13·17
14·2	—	2·03	1·02	·97	18·7	·42	5·62	·42	3·03
17·3	—	4·06	1·02	1·44	18·7	—	·62	·42	1·09
22·3	—	2·03	1·02	·96	14·8	—	·62	·42	·47
2·0	—	—	—	·06	·8	—	—	—	·07
9·1	—	—	1·02	·52	18·1	·62	4·16	1·66	1·31
44·7	—	—	—	3·24	55·8	—	1·04	·21	5·29
—	—	—	—	—	—	—	—	·21	—
44·7	1·02	1·02	2·03	2·83	29·6	·83	2·29	1·25	1·82
192·9	5·07	8·12	2·03	10·00	279·5	6·66	18·32	2·50	12·92
125·9	—	—	—	7·69	96·4	—	—	—	5·27
20·3	—	—	—	1·05	15·2	—	—	—	·94
17·3	—	—	—	1·04	14·8	—	—	—	·52
14·2	—	—	—	·62	20·0	—	·21	·21	·90
6·1	—	3·05	—	·57	4·6	—	·83	·62	·42
28·4	—	—	—	1·08	31·4	·21	·21	·21	1·00
98·5	—	—	—	4·47	106·6	—	·42	·83	3·58
24·4	—	8·12	1·02	2·38	23·9	—	4·16	2·29	1·42
15·2	—	—	—	·25	14·1	·42	—	—	·28
—	1·02	—	—	—	·2	1·87	·21	·21	·03
142·1	1·02	—	—	4·11	157·7	·42	·42	·83	4·89
—	—	—	—	—	—	—	—	—	—
3·0	—	—	—	·09	2·3	—	—	—	·09
—	—	—	—	—	—	—	—	—	—
1198·0	11·17	32·49	13·20	67·49	1249·3	16·23	48·50	17·07	62·69
1049·3	14·00	38·40	13·70	54·40	—	—	—	—	—

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. XIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into TROOPS stationed in CHINA and the STRAITS SETTLEMENTS, during the Year 1884,

Orders.	Average Strength, 1,988. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
	I. *General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	1	—	—	—	—	—	·05
	Continued - { Enteric -	—	—	—	—	—	—	—
	Continued - { Other -	267	—	—	—	1	—	7·13
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	268	2	—	2	10	—	9·72
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	6	2	—	2	—	—	·18
	Total - -	542	4	—	4	11	—	17·08
	Constitutional Group.							
	Rheumatism - - -	81	—	—	—	—	1	1·46
	Primary Syphilis - -	62	—	—	—	—	—	5·80
	Secondary „ - -	46	—	—	—	3	1	3·35
	Tubercular diseases - -	12	—	—	—	9	6	2·01
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other Diseases - -	6	—	—	—	2	—	·45
	Total - -	157	—	—	—	14	8	13·07
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	37	1	—	1	7	5	2·20
2	Eye - - -	12	—	—	—	2	3	·99
3	Ear - - - -	24	—	—	—	1	1	1·06
4	Nose - - -	—	—	—	—	—	—	—
5	Circulatory System - -	41	2	—	2	3	1	3·97
6	Absorbent „ - -	34	—	—	—	—	—	3·09
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	65	—	—	—	1	3	4·10
9	Digestive „ - -	256	3	—	3	7	2	9·11
10	Urinary System { Gonorrhœa -	154	—	—	—	—	—	10·24
	Urinary System { Sequelæ of Gonorr.	26	—	—	—	—	—	2·07
	Urinary System { Other diseases -	24	—	—	—	5	—	1·45
11	Generative system - -	35	—	—	—	1	1	1·28
12	Organs of Locomotion -	14	—	—	—	1	—	1·22
13	Cellular Tissue - -	49	—	—	—	—	—	2·11
14	Cutaneous System - -	144	—	—	—	1	—	6·57
	III.—*Debility* -	84	—	1	1	21	3	5·06
	IV.—*Poisons* -	39	—	—	—	—	—	1·00
	V.—*Injuries.*							
1	General - - -	—	1	—	1	—	—	—
2	Local - - - -	202	2	—	2	1	1	7·31
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	9	—	—	—	—	—	·23
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	1,948	13	1	14	76	28	93·21
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·5	—	—	—	·06
·5	—	—	—	·02	2·0	—	—	—	·07
—	—	—	—	—	1·1	·57	·11	—	·08
134·3	—	·50	—	3·59	166·9	·11	·68	—	4·50
—	—	—	—	—	—	—	—	—	—
134·8	1·01	5·03	—	4·89	115·3	·68	·68	—	3·21
—	—	—	—	—	—	—	—	—	—
3·0	1·01	—	—	·09	1·9	·23	—	—	·06
272·6	2·01	5·53	—	8·59	287·7	1·59	1·47	—	7·98
15·6	—	—	·50	·73	17·7	—	—	·11	·94
31·2	—	—	—	2·92	57·3	—	—	—	5·05
23·2	—	1·51	·50	1·68	11·4	·11	·34	·68	1·30
6·0	—	4·53	3·02	1·01	14·6	1·25	8·04	4·19	2·00
—	—	—	—	—	·2	—	—	—	—
3·0	—	1·01	—	·23	2·4	·23	·68	—	·16
79·0	—	7·04	4·02	6·57	103·6	1·59	9·06	4·98	9·45
18·6	·50	3·52	2·52	1·11	16·8	1·36	3·30	·45	1·60
6·0	—	1·01	1·51	·50	13·9	—	1·13	·90	·96
12·1	—	·50	·50	·53	11·9	—	·68	·23	·67
—	—	—	—	—	·5	—	·11	—	·02
20·6	1·01	1·51	·50	2·00	23·2	·79	5·44	3·74	1·99
17·1	—	—	—	1·56	26·7	—	—	—	2·95
—	—	—	—	—	—	—	—	—	—
32·7	—	·50	1·51	2·06	41·1	·11	1·58	·45	2·29
128·8	1·51	3·52	1·01	4·58	153·4	1·25	4·97	1·25	6·98
77·5	—	—	—	5·15	89·4	—	—	—	5·43
13·1	—	—	—	1·04	17·0	—	—	—	1·03
12·1	—	2·52	—	·73	9·7	·11	1·13	·23	·99
17·6	—	·50	·50	·64	16·9	—	·23	·23	·85
7·0	—	·50	—	·61	4·3	·11	·90	·68	·49
24·7	—	—	—	1·06	18·9	—	·45	—	·81
72·4	—	·50	—	3·31	63·8	—	—	·11	2·54
42·3	·50	10·56	1·51	2·55	38·4	—	8·49	2·04	2·59
19·6	—	—	—	·50	7·9	·23	—	—	·28
—	·50	—	—	—	·2	·34	—	—	·01
101·6	1·01	·50	·50	3·68	110·6	·11	·57	·57	3·74
—	—	—	—	—	—	—	—	—	—
4·5	—	—	—	·12	2·8	—	—	—	·05
—	—	—	—	—	—	—	—	—	—
979·9	7·04	38·23	14·08	46·89	1058·7	7·59	39·51	15·86	53·70
1049·4	10·82	43·03	17·65	49·23	—	—	—	—	—

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. XIV.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into stationed in BENGAL during the Year 1884, with the Ratios per

Orders.	Average Strength, 33,716.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number Constantly Sick.
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers Small Pox	50	6	—	6	—	—	4·14
	Eruptive Fevers Other	28	—	—	—	—	—	1·45
	Continued „ Enteric	428	111	—	111	2	—	57·18
	Continued „ Other	3,692	2	—	2	1	—	108·02
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	19,026	11	1	12	50	4	497·42
	Cholera	71	45	—	45	—	—	2·19
	Other diseases	87	3	1	4	—	—	4·19
	Total of Febrile group	23,377	178	2	180	58	4	674·59
	Constitutional Group.							
	Rheumatism	1,174	2	—	2	58	20	71·31
	Primary Syphilis	2,924	—	—	—	—	—	205·98
	Secondary „	824	2	—	2	34	7	73·58
	Tubercular Diseases	242	30	7	37	89	63	42·84
	Scurvy and Purpura	79	1	—	1	—	—	4·66
	Other diseases	262	3	—	3	40	4	16·29
	Total of Constitutional group	5,505	38	7	45	221	94	414·66
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	657	45	—	45	110	98	54·62
2	Eye	565	—	—	—	29	22	30·29
3	Ear	528	—	—	—	40	27	24·41
4	Nose	40	—	—	—	—	—	1·77
5	Circulatory System	494	7	2	9	161	108	44·40
6	Absorbent „	498	—	—	—	2	—	52·28
7	Ductless Glands	4	—	—	—	1	1	·36
8	Respiratory System	1,548	25	2	27	42	23	70·65
9	Digestive „	7,598	48	2	50	210	33	279·68
10	Urinary System Gonorrhœa	4,376	—	—	—	—	—	306·56
	Urinary System Sequelæ of Gonorr.	665	—	—	—	5	1	44·21
	Urinary System Other diseases	371	2	—	2	11	6	14·40
11	Generative System	401	—	—	—	6	1	22·52
12	Organs of Locomotion	225	—	2	2	33	13	19·84
13	Cellular Tissue	736	1	—	1	9	4	33·39
14	Cutaneous System	2,936	—	—	—	8	3	113·28
	III.—*Debility*	368	—	—	—	103	46	24·36
	IV.—*Poisons*	350	7	—	7	1	—	9·73
	V.—*Injuries.*							
1	General	10	14	—	14	1	—	·24
2	Local	4,105	26	—	26	27	42	150·25
3	In action	—	—	—	—	—	—	—
	No appreciable disease	96	—	—	—	—	—	2·67
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	55,448	391	17	408	1,073	526	2,389·16
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.†
1·5	·18	—	—	·12	1·0	·08	—	—	·09
·8	—	—	—	·04	2·1	·01	—	—	·10
12·5	3·29	·06	—	1·70	7·8	3·00	·08	—	·87
109·5	·06	·03	—	3·20	139·4	·16	·07	—	4·16
—	—	—	—	—	—	—	—	—	—
564·3	·36	1·48	·12	14·76	582·0	1·34	2·21	·07	13·49
2·1	1·33	—	—	·06	4·5	3·46	—	—	·06
2·6	·12	—	—	·13	4·2	·10	·01	·02	·23
693·3	5·34	1·57	·12	20·01	741·0	8·15	2·37	·09	19·00
34·8	·06	1·72	·59	2·12	38·1	·02	1·49	·81	2·16
86·7	—	—	—	6·11	88·1	—	·05	—	6·50
24·4	·06	1·01	·21	2·18	23·9	·03	1·03	·56	1·92
7·2	1·09	2·64	1·87	1·27	7·0	1·45	2·36	1·68	·99
2·3	·03	—	—	·14	1·0	·04	·01	—	·08
7·8	·09	1·18	·12	·48	3·7	·13	·55	·17	·30
163·2	1·33	6·55	2·79	12·30	161·8	1·67	5·48	3·22	11·95
19·5	1·33	3·26	2·91	1·62	20·3	2·43	2·93	·79	1·51
16·8	—	·86	·65	·90	15·6	—	·60	·63	·90
15·7	—	1·18	·80	·72	12·1	—	·57	·52	·62
1·2	—	—	—	·05	·7	·01	·02	·01	·03
14·7	·27	4·78	3·20	1·32	16·2	·63	4·03	3·02	1·30
14·8	—	·06	—	1·55	18·7	—	·07	·05	1·62
·1	—	·03	·03	·01	·3	·01	·02	·01	·03
45·8	·80	1·24	·68	2·09	55·4	1·50	1·11	·87	2·69
225·4	1·48	6·23	·98	8·29	236·9	4·08	6·49	2·23	9·01
129·8	—	—	—	9·09	112·9	—	—	—	6·92
19·7	—	·15	·03	1·31	16·2	·01	·18	·07	1·12
11·0	·06	·33	·18	·43	10·6	·23	·38	·22	·54
11·9	—	·18	·03	·67	12·4	·01	·09	·09	·63
6·7	·06	·98	·38	·59	5·2	·07	·64	·49	·47
21·8	·03	·27	·12	·99	17·8	·01	·08	·03	·85
87·1	—	·24	·09	3·36	77·7	—	·29	·23	3·29
10·9	—	3·05	1·36	·72	38·4	·10	8·00	3·90	1·76
10·4	·21	·08	—	·29	4·6	·33	—	—	·20
·3	·42	·03	—	·01	·3	·51	·01	·01	·02
121·7	·77	·80	1·25	4·46	100·0	·95	·92	·71	4·04
	—	—	—	—	—	·01	·11	·01	—
2·8	—	—	—	·08	1·6	—	·01	—	·06
—	—	—	—	—	—	—	—	—	—
1644·6	12·10	31·82	15·60	70·86	1671·7	20·71	34·40	17·20	68·56
1529·9	18·74	36·64	16·10	63·51	—	—	—	—	—

for the six years 1879 to 1884 will be given in the Report for 1885

† For three years only.

ABSTRACT No. XV.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS and DEATHS which took place at the CHIEF STATIONS in the BENGAL COMMAND during the year 1884.

Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Ratio per 1,000 of Strength, 1874 to 1883.	
					Admissions.	Deaths.	Admissions.	Deaths.
PRESIDENCY	Fort William	869	1,048	9	1206·0	10·36	994·7	8·81
	Dum-Dum	798	852	6	1067·7	7·52	1269·4	13·93
	Barrackpore	220	325	4	1477·3	18·18	1982·7	15·13
	Darjeeling	241	291	4	1207·5	16·60	1076·8	17·24
ALLAHABAD	Allahabad	572	811	11	1417·8	19·23	1550·3	19·98
	Fort Allahabad	234	356	3	1521·4	12·82	*1636·2	21·17
	Cawnpore	679	803	5	1182·6	7·36	1449·7	17·88
	Dinapore	948	1,731	21	1825·9	22·15	1534·2	15·33
	Benares	270	392	6	1451·9	22·22	1672·4	25·81
	Chunar	77	133	2	1727·3	25·97	2502·7	43·72
OUDH	Lucknow	2,110	2,396	26	1135·5	12·32	1406·1	17·17
	Military Prison	45	38	—	844·4	—	†1537·6	53·76
	Sitapur	347	340	6	1005·8	17·29	1364·0	18·13
	Fyzabad	895	1,239	9	1384·4	10·06	1543·3	22·37
ROHILCUND	Bareilly	639	748	11	1170·6	17·21	1240·6	10·76
	Moradabad	90	182	2	2022·2	22·22	1406·8	17·66
	Shahjehanpur	188	201	2	1069·1	10·64	1198·6	15·39
	Ranikhet	448	451	1	1006·7	2·23	940·4	9·69
	Choubuttia	181	291	2	1607·7	11·05	‡1212·0	6·31
	Naini Tal	213	267	—	1253·5	—	1388·6	17·66
SAUGOR	Jubbulpore	624	895	1	1434·3	1·60	1323·3	9·58
	Saugor	370	403	2	1089·2	5·41	1544·1	16·27
	Nowgong	275	600	4	2181·8	14·55	1516·5	18·62
	Pachmarhi	123	137	1	1113·8	8·13	1440·3	8·35
GWALIOR	Morar	1,086	2,431	30	2238·5	27·62	1621·6	22·12
	Fortress Gwalior	407	651	9	1599·5	22·11	1290·3	22·90
	Jhansi	294	720	2	2449·0	6·80	1852·1	9·14
MEERUT	Meerut	1,703	2,965	30	1741·0	17·62	1639·1	15·65
	Fatehgarh	192	396	6	2062·5	31·25	1630·1	13·84
	Agra	955	1,756	14	1838·7	14·66	1495·1	13·07
	Muttra	368	540	6	1467·4	16·30	1340·1	18·22
	Delhi	483	2,308	10	4778·5	20·70	1651·8	19·24
	Roorkee	414	785	4	1896·1	9·66	1166·0	15·78
	Chakrata	523	453	3	866·2	5·74	853·7	6·47
	Landour	172	273	3	1587·2	17·44	1634·3	16·08
SIRHIND	Umballa	1,598	3,311	15	2072·0	9·39	1429·9	12·16
	Jullundur	701	1,088	3	1552·1	4·28	1555·6	17·73
	Subathu	359	387	4	1078·0	11·14	1111·2	16·41
	Dagshai	727	687	2	945·0	2·75	1015·7	9·98
	Jutogh	255	427	—	1674·5	—	1032·7	12·06
	Solon	230	433	1	1882·6	4·35	1117·3	13·55
	Kasauli	406	706	4	1738·9	9·85	1776·9	23·54
LAHORE	Meean Meer	846	2,041	10	3476·4	11·82	2852·1	30·34
	Fort Lahore	127	482	4	3795·3	31·50	2338·1	40·98
	Ferozepore	1,100	1,984	8	1803·6	7·27	1616·8	14·67
	Mooltan	985	2,420	12	2456·9	12·18	1681·5	11·97
	Amritsar	158	496	—	3139·2	—	2674·2	15·58
	Bhagsu	55	50	—	909·1	—	§1213·2	14·71
	Dalhousie	319	554	4	1736·7	12·54	1658·9	7·41

* 6 years (1878-83). † 2 years (1882-3). ‡ 5 years (1879-83).
§ 8 years (1874-78 and 1881-83).

Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Ratio per 1,000 of Strength, 1874 to 1883.	
					Admissions.	Deaths.	Admissions.	Deaths.
RAWAL PINDI	Rawal Pindi	1,770	2,140	16	1209·0	9·04	1614·1	13·45
	Fort Attock	106	245	1	2311·3	9·43	2464·8	26·98
	Sialkot	920	1,403	12	1525·0	13·04	1591·7	20·56
	Campbellpore	167	294	6	1760·5	35·93	1423·2	18·75
	Khyra Gully	44	52	—	1181·8	—	1382·0	29·20
	Barra Gully	34	28	—	823·5	—	*1300·3	5·67
	Chungla Gully	42	42	—	1000·0	—	†1301·8	8·46
	Kalabagh	42	54	1	1285·7	23·81	*1556·2	11·12
	Kooldunnah	220	298	—	1354·5	—	*1187·2	16·34
	Camp Gharial	101	159	—	1574·3	—	† 848·1	14·51
	„ Thobba	6	9	—	1500·0	—	‡ 421·1	—
	„ Topa	203	194	—	955·7	—		
	Murree	235	340	4	1446·8	17·02	2200·3	23·39
PESHAWAR	Peshawar	1,235	3,199	14	2590·3	11·34	2569·2	21·43
	Nowshera	575	1,057	2	1838·3	3·48	1779·3	19·81
	Cherat	431	644	9	1494·2	20·88	§1418·1	14·00
MARCHING	Troops marching	1,666	1,107	4	664·5	2·40	969·3	16·06

* 9 years (1874–79 and 1881–83).
† 8 years (1874–78 and 1881–83).
‡ 1 year (1882).
§ 9 years (1874–78 and 1880–83).

ABSTRACT No. XVI.—TABLE, taken from the REPORT of the PRINCIPAL
FERENT CLASSES of DISEASES in each of the MILITARY DIVISIONS in the

Order.	Military Divisions.	Presidency.		Allahabad.		Oudh.		Rohilcund.	
	Average Strength.	2,128		2,780		3,397		1,759	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
	Febrile Group.								
	Eruptive Fevers	—	—	27	2	5	1	2	—
	Continued „	142	8	410	9	350	16	162	4
	Yellow Fever	—	—	—	—	—	—	—	—
	Paroxysmal Fevers	381	—	838	—	388	—	240	—
	Cholera	3	2	23	16	4	3	4	3
	Other Diseases	3	—	5	—	10	2	3	—
	Total	529	10	1,303	27	757	22	411	7
	Constitutional Group.								
	Rheumatism	100	—	92	1	112	—	54	—
	Primary Syphilis	292	—	224	—	254	—	95	—
	Secondary „	49	—	91	—	125	—	39	—
	Tubercular Diseases	11	2	27	3	36	2	21	3
	Scurvy and Purpura	—	—	11	—	4	1	5	—
	Other diseases	5	—	14	—	13	—	7	—
	Total	457	2	459	4	544	3	221	3
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System	34	2	78	5	52	3	41	3
2	Eye	25	—	47	—	52	—	37	—
3	Ear	51	—	40	—	76	—	26	—
4	Nose	—	—	1	—	3	—	1	—
5	Circulatory System	13	1	26	—	32	1	33	1
6	Absorbent „	40	—	82	—	37	—	23	—
7	Ductless Glands	—	—	1	—	—	—	1	—
8	Respiratory System	62	2	128	3	131	1	80	—
9	Digestive „	411	2	722	5	735	4	463	2
10	Urinary System. Gonorrhœa	321	—	425	—	385	—	270	—
	Urinary System. Sequelæ of Gonorrhœa	37	—	98	—	102	—	46	—
	Urinary System. Other Diseases	18	—	31	—	25	—	24	—
11	Generative System	40	—	29	—	43	—	27	—
12	Organs of Locomotion	9	—	32	—	18	—	6	—
13	Cellular Tissue	29	—	79	—	93	—	23	—
14	Cutaneous System	179	—	239	—	422	—	127	—
	III. *Debility*	18	—	34	—	21	—	30	—
	IV. *Poisons*	20	1	31	—	32	1	45	—
	V. *Injuries.*								
	General	—	2	—	2	—	1	—	—
	Local	219	1	327	2	443	5	198	2
3	In action	—	—	—	—	—	—	—	—
	No appreciable Disease	4	—	14	—	19	—	2	—
	Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—
	General total	2,516	23	4,226	48	4,022	41	2,140	18

MEDICAL OFFICER, showing the PREVALENCE and MORTALITY of the DIF-
BENGAL COMMAND with the ratios per 1,000 of Strength during the year 1884.

Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Marching.		Total.	
1,392		1,787		4,810		4,276		3,590		3,890		2,241		1,666		33,716	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1	—	—	—	24	1	14	—	3	1	—	—	2	1	—	—	78	6
115	1	554	22	220	21	466	1	613	10	433	16	631	5	19	—	4,115	113
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
806	—	1,464	—	4,607	—	2,242	2	5,074	4	1,097	4	1,662	—	227	1	19,026	11
—	—	7	6	30	15	—	—	—	—	—	—	—	—	—	—	71	45
6	—	1	—	12	—	19	1	4	—	11	—	10	—	3	—	87	3
928	1	2,026	28	4,893	37	2,741	4	5,634	15	1,541	20	2,305	6	249	1	23,377	178
24	—	60	—	168	1	172	—	122	—	136	—	93	—	41	—	1,174	2
166	—	81	—	361	—	313	—	295	—	541	—	171	—	131	—	2,924	—
63	—	20	—	105	1	85	—	79	—	98	1	53	—	17	—	824	2
7	1	7	1	39	10	30	2	21	1	21	3	19	2	3	—	242	30
—	—	19	—	10	—	24	—	3	—	1	—	2	—	—	—	79	1
6	—	16	—	27	2	40	1	73	—	35	—	19	—	7	—	262	3
266	1	203	1	710	14	664	3	593	1	832	4	357	2	199	—	5,505	38
11	—	48	6	68	6	84	3	69	8	78	3	85	6	9	—	657	45
26	—	29	—	87	—	110	—	46	—	48	—	46	—	12	—	565	—
15	—	32	—	65	—	60	—	32	—	54	—	74	—	3	—	528	—
—	—	8	—	8	—	3	—	11	—	2	—	3	—	—	—	40	—
10	—	37	—	88	—	109	—	55	2	27	—	58	2	6	—	494	7
14	—	35	—	61	—	55	—	23	—	49	—	60	—	19	—	498	—
—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	4	—
32	1	95	2	267	5	171	2	205	4	154	1	188	4	30	—	1,543	25
257	2	512	—	1,033	7	1,164	10	725	5	795	7	684	3	92	1	7,598	48
164	—	222	—	807	—	465	—	446	—	377	—	228	—	266	—	4,376	—
19	—	57	—	66	—	66	—	57	—	36	—	60	—	21	—	665	—
17	—	18	—	57	—	56	1	33	1	57	—	33	—	7	—	371	2
11	—	19	—	53	—	48	—	38	—	47	—	35	—	11	—	401	—
3	—	11	—	39	—	49	—	12	—	21	—	14	—	11	—	225	—
12	—	38	—	117	1	98	—	101	—	77	—	52	—	17	—	736	1
84	—	174	—	417	—	394	—	343	—	300	—	230	—	27	—	2,936	—
27	—	35	—	44	—	45	—	34	—	33	—	41	—	6	—	368	—
8	—	18	—	17	—	22	3	26	1	66	—	40	1	25	—	350	7
1	—	—	3	1	2	5	—	—	—	1	2	2	—	—	2	10	14
126	3	187	1	564	4	619	3	376	1	649	3	300	1	97	—	4,105	26
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	3	—	18	—	10	—	8	—	14	—	5	—	—	—	96	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2,035	8	3,802	41	9,476	76	7,039	29	8,927	38	5,258	40	4,900	25	1,107	4	55,448	391

Ratio per 1,000

Order.	Military Divisions.	Presidency.		Allahabad.		Oudh.		Rohilcund.	
	Average Strength.	2,128		2,780		3,397		1,759	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
	Febrile Group.								
	Eruptive Fevers	—	—	9·7	·72	1·5	·30	1·1	—
	Continued „	66·7	3·76	147·5	3·24	103·0	4·71	92·1	2·27
	Yellow Fever	—	—	—	—	—	—	—	—
	Paroxysmal Fevers	179·1	—	301·4	—	114·2	—	136·4	—
	Cholera	1·4	·94	8·3	5·75	1·2	·88	2·3	1·71
	Other diseases	1·4	—	1·8	—	2·9	·58	1·7	—
	Total	248·6	4·70	468·7	9·71	222·8	6·47	233·6	3·98
	Constitutional Group.								
	Rheumatism	47·0	—	33·1	·36	32·9	—	30·7	—
	Primary Syphilis	137·2	—	80·6	—	74·8	—	54·0	—
	Secondary „	23·0	—	32·7	—	36·8	—	22·2	—
	Tubercular Diseases	5·2	·94	9·7	1·08	10·6	·58	11·9	1·71
	Scurvy and Purpura	—	—	4·0	—	1·2	·30	2·8	—
	Other diseases	2·4	—	5·0	—	3·8	—	4·0	—
	Total	214·8	·94	165·1	1·44	160·1	·88	125·6	1·71
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System	16·0	·94	28·1	1·80	15·3	·88	23·3	1·71
2	Eye	11·7	—	16·9	—	15·3	—	21·1	—
3	Ear	24·0	—	14·4	—	22·4	—	14·8	—
4	Nose	—	—	·4	—	·9	—	·6	—
5	Circulatory System	6·1	·47	9·4	—	9·4	·30	18·7	·57
6	Absorbent „	18·8	—	29·5	—	10·9	—	13·1	—
7	Ductless Glands	—	—	·4	—	—	—	·6	—
8	Respiratory System	29·1	·94	46·0	1·08	38·6	·30	45·5	—
9	Digestive „	193·1	·94	259·7	1·80	216·4	1·17	266·1	1·13
10	Urinary System: Gonorrhœa	150·8	—	152·9	—	113·3	—	153·5	—
	Urinary System: Sequelæ of Gonorrhœa	17·4	—	35·3	—	30·0	—	26·1	—
	Urinary System: Other diseases	8·5	—	11·1	—	7·4	—	13·6	—
11	Generative System	18·8	—	10·4	—	12·7	—	15·3	—
12	Organs of Locomotion	4·2	—	11·5	—	5·3	—	3·4	—
13	Cellular Tissue	13·6	—	28·4	—	27·4	—	13·1	—
14	Cutaneous System	84·1	—	86·0	—	124·2	—	72·2	—
	III. *Debility*	8·5	—	12·2	—	6·2	—	17·1	—
	IV. *Poisons*	9·4	·47	11·1	—	9·4	·30	25·6	—
	V. *Injuries.*								
1	General	—	·94	—	·72	—	·30	—	—
2	Local	102·9	·47	117·6	·72	130·4	1·47	112·6	1·13
3	In action	—	—	—	—	—	—	—	—
	No appreciable disease	1·9	—	5·0	—	5·6	—	1·1	—
	Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—
	General Total	1182·3	10·81	1520·1	17·27	1184·0	12·07	1216·6	10·23

Mean Strength.

Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Marching.		Total.	
1,392		1,787		4,816		4,276		3,590		3,890		2,241		1,666		33,716	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
·7	—	—	—	5·0	·21	3·3	—	·8	·28	—	—	·9	·45	—	—	2·3	·18
82·6	·72	310·0	12·31	45·8	4·36	109·0	·23	170·8	2·79	111·3	4·11	281·6	2·23	11·4	—	123·0	3·35
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
379·0	—	819·3	—	957·8	—	524·3	·47	1413·4	1·11	282·0	1·03	741·6	—	136·3	·60	564·3	·33
—	—	3·9	3·36	6·2	3·12	—	—	—	—	—	—	—	—	—	—	2·1	1·33
4·3	—	·5	—	2·5	—	4·4	·23	1·1	—	2·8	—	4·5	—	1·8	—	2·6	·09
666·6	·72	1133·7	15·67	1017·3	7·69	641·0	·94	1586·1	4·18	396·1	5·14	1028·6	2·68	149·5	·60	693·3	5·28
17·2	—	33·6	—	34·9	·21	40·2	—	34·0	—	35·0	—	41·5	—	24·6	—	34·8	·06
119·3	—	45·3	—	75·1	—	73·2	—	82·2	—	139·1	—	76·3	—	78·6	—	86·7	—
45·3	—	11·2	—	121·8	·21	19·9	—	22·0	—	25·2	·26	23·6	—	10·2	—	24·4	·06
5·0	·72	3·9	—	8·1	2·08	7·0	·47	5·9	·28	5·4	·77	8·5	·89	1·8	—	7·2	·89
—	—	10·6	·56	2·1	—	5·6	—	·8	—	·2	—	1·9	—	—	—	2·3	·03
4·3	—	9·0	—	5·6	·41	9·4	·23	20·3	—	9·0	—	8·5	—	4·2	—	7·8	·09
191·1	·72	113·6	·56	147·6	2·91	155·3	·70	165·2	·28	213·9	1·03	159·3	·89	119·4	—	163·2	1·13
7·9	—	26·9	3·36	14·1	1·25	19·6	·70	19·2	2·23	20·1	·77	37·9	2·68	5·4	—	19·5	1·33
18·7	—	16·2	—	18·1	—	25·7	—	12·8	—	12·3	—	20·5	—	7·2	—	16·8	—
10·8	—	17·9	—	13·5	—	14·0	—	8·9	—	13·9	—	33·0	—	1·8	—	15·7	—
—	—	4·5	—	1·7	—	·7	—	3·1	—	·5	—	1·3	—	—	—	1·2	—
7·2	—	20·7	—	18·3	—	25·5	—	15·3	·55	6·9	—	25·9	·89	3·6	—	14·7	·21
10·1	—	19·6	—	12·7	—	12·9	—	6·4	—	12·6	—	26·8	—	11·4	—	14·8	—
—	—	—	—	·2	—	·2	—	—	—	—	—	—	—	—	—	·1	—
23·0	·72	53·2	1·12	55·5	1·04	40·0	·47	57·1	1·11	39·6	·26	83·9	1·78	18·0	—	45·8	·74
181·6	1·44	286·5	—	214·8	1·46	272·2	2·34	202·0	1·39	204·4	1·80	305·2	1·34	55·2	·60	225·4	1·42
117·8	—	124·2	—	167·8	—	108·8	—	124·2	—	96·9	—	101·7	—	159·7	—	129·8	—
13·6	—	31·9	—	13·7	—	15·4	—	15·9	—	9·3	—	26·8	—	12·6	—	19·7	—
12·2	—	7·3	—	11·9	—	13·1	·23	9·2	·28	14·7	—	14·7	—	4·2	—	11·0	·06
7·9	—	10·6	—	11·0	—	11·2	—	10·6	—	12·1	—	15·6	—	6·6	—	11·9	—
2·2	—	6·2	—	8·1	—	11·5	—	3·3	—	5·4	—	6·3	—	6·6	—	6·7	—
8·6	—	21·2	—	24·3	·21	22·9	—	28·1	—	19·8	—	23·2	—	10·2	—	21·8	·03
60·4	—	97·4	—	86·7	—	92·2	—	95·6	—	77·1	—	102·6	—	16·2	—	87·1	—
19·4	—	19·6	—	9·1	—	10·5	—	9·5	—	18·5	—	18·3	—	3·6	—	10·9	—
5·7	—	10·1	—	3·5	—	5·2	·70	7·2	·28	17·0	—	17·9	·45	15·0	—	10·4	·21
·7	—	—	1·67	·2	·41	1·2	—	—	—	·2	·51	·9	—	—	1·20	·3	·42
90·5	2·15	104·6	·56	117·3	·83	144·8	·70	104·7	·28	166·8	·77	133·9	·45	58·3	—	121·7	·77
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·9	—	1·7	—	2·7	—	2·3	—	2·2	—	3·6	—	2·2	—	—	—	2·8	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1461·9	5·75	2127·6	22·94	1970·1	15·80	1646·2	6·78	2486·6	10·58	1351·7	10·28	2186·5	11·16	664·5	2·40	1644·6	11·60

ABSTRACT No. XVII.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the STATIONS in the BENGAL COMMAND at which the ADMISSIONS and DEATHS from ENTERIC FEVER took place in each of the four quarters of the year 1884.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency -	Fort William -	—	—	1	1	—	—	1	1	2	2
	Dum-Dum -	—	—	6	3	—	—	—	—	6	3
	Barrackpore	—	—	1	1	—	—	—	—	1	1
	Darjeeling -	—	—	1	1	—	—	—	—	1	1
Allahabad -	Fort Allahabad	—	—	1	—	1	—	—	—	2	—
	Cawnpore -	—	—	—	—	—	—	1	—	1	—
	Dinapore -	13	5	1	—	—	—	3	—	17	5
	Benares -	—	—	—	—	8	3	1	—	9	3
	Chunar -	9	—	—	—	—	—	—	—	9	—
Oudh - -	Lucknow -	6	—	20	3	20	5	7	1	53	9
	Lucknow Military Prison	—	—	1	—	—	—	—	—	1	—
	Sitapur -	6	3	18	1	—	—	—	—	24	4
	Fyzabad -	1	—	9	—	3	1	9	2	22	3
Rohilcund -	Bareilly -	1	—	4	3	1	1	1	—	7	4
	Moradabad -	—	—	1	—	—	—	—	—	1	—
	Ranikhet -	—	—	4	—	—	—	—	—	4	—
Saugor - -	Jubbulpore -	—	—	—	—	—	—	2	—	2	—
	Saugor - -	—	—	—	—	1	—	1	1	2	1
	Pachmarhi -	1	—	1	—	—	—	—	—	2	—
Gwalior - -	Morar - -	4	1	5	4	18	9	6	3	33	17
	Fortress Gwalior.	—	—	—	—	5	4	1	1	6	5
Meerut - -	Meerut - -	1	—	9	3	5	1	6	1	21	5
	Fatehgarh -	—	—	1	—	2	2	—	—	3	2

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Meerut—*cont.*	Agra - -	—	—	2	—	16	4	3	3	21	7
	Muttra -	—	—	1	1	3	1	1	1	5	3
	Delhi - -	—	—	1	1	2	1	1	1	4	3
	Roorkee -	1	—	—	—	—	—	3	1	4	1
	Chakrata -	—	—	1	—	—	—	—	—	1	—
Sirhind - -	Umballa -	4	—	3	—	8	1	2	—	17	1
	Jullundur -	1	—	—	—	1	—	—	—	2	—
	Subathu -	—	—	4	—	6	—	—	—	10	—
	Dagshai -	—	—	6	—	—	—	1	—	7	—
	Kasauli - -	—	—	—	—	2	—	—	—	2	—
Lahore - -	Meean Meer -	2	—	10	1	—	—	2	—	14	1
	Fort Lahore -	—	—	2	—	—	—	1	—	3	—
	Ferozepore -	3	—	2	1	2	—	1	1	8	2
	Mooltan -	—	—	15	4	4	1	4	1	23	6
	Amritsar -	—	—	1	—	—	—	1	—	2	—
Rawal Pindi -	Dalhousie -	—	—	1	—	1	1	—	—	2	1
	Rawal Pindi -	—	—	6	1	9	4	6	1	21	6
	Sialkot - -	1	—	1	1	2	1	7	5	11	7
	Campbellpore	—	—	2	—	2	1	1	—	5	1
	Khyragully -	—	—	1	—	—	—	—	—	1	—
	Gharial -	—	—	—	—	1	—	—	—	1	—
	Murree -	—	—	1	—	1	—	4	2	6	2
Peshawar -	Peshawar -	1	—	6	1	1	—	—	—	8	1
	Nowshera -	—	—	2	—	—	—	—	—	2	—
	Cherat - -	—	—	8	2	4	2	—	—	12	4
	Marching -	1	—	1	—	—	—	—	—	2	—
	Total -	56	9	161	33	129	43	77	26	423	111

ABSTRACT No. XVIII.—**Table, taken from the Report of the Principal Medical Officer, showing the Stations in the Bengal Command at which the Admissions and Deaths from Cholera took place in each of the four quarters of the year 1883.**

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency	Fort William	—	—	2	1	—	—	—	—	2	1
	Dum-Dum	—	—	—	—	1	1	—	—	1	1
Allahabad	Allahabad	—	—	1	—	2	—	7	5	10	5
	Fort Allahabad	—	—	1	1	—	—	—	—	1	1
	Cawnpore	—	—	1	1	1	1	—	—	2	2
	Dinapore	—	—	—	—	6	4	3	3	9	7
	Chunar	—	—	1	1	—	—	—	—	1	1
Oudh	Lucknow	—	—	—	—	2	2	—	—	2	2
	Sitapur	—	—	—	—	1	—	—	—	1	—
	Fyzabad	—	—	1	1	—	—	—	—	1	1
Rohilcund	Bareilly	—	—	—	—	—	—	3	3	3	3
	Shahjahanpur	1	—	—	—	—	—	—	—	1	—
Gwalior	Morar	—	—	—	—	1	1	4	3	5	4
	Fortress Gwalior.	—	—	—	—	2	2	—	—	2	2
Meerut	Meerut	—	—	1	—	17	7	10	6	28	13
	Fatehgarh	—	—	—	—	1	1	—	—	1	1
	Agra	—	—	1	1	—	—	—	—	1	1
	Total	1	—	9	6	34	19	27	20	71	45

ABSTRACT No. XIX.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE of DYSENTERY, DIARRHŒA, and HEPATITIS in each of the DIVISIONS in the BENGAL COMMAND during the Year 1884.

Divisions.	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Marching.		Total.	
Strength.	2,128		2,780		3,397		1,759		1,392		1,787		4,810		4,276		3,590		3,890		2,241		1,666		33,716	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	55	—	88	—	102	—	45	—	22	—	60	—	109	2	83	1	49	1	50	—	42	1	24	—	729	6
Diarrhœa	80	—	124	—	166	—	192	—	48	—	155	—	193	1	241	—	169	—	174	1	133	—	30	—	1,705	1
Hepatitis and Abscess of Liver	56	1	99	4	75	4	41	1	28	1	42	—	153	3	134	6	72	2	85	4	66	2	9	—	860	28
Total	191	1	311	4	343	4	278	1	98	1	257	—	455	6	458	7	290	3	309	5	241	3	63	—	3,294	35

Ratio per 1,000 of Mean Strength.

Dysentery	25·9	—	31·7	—	30·0	—	25·6	—	15·8	—	33·6	—	22·7	·42	19·4	·23	13·6	·28	12·9	·26	18·7	·45	14·4	—	21·6	·18
Diarrhœa	37·6	—	44·6	—	48·9	—	109·1	—	34·5	—	86·7	—	40·1	·21	56·4	—	47·1	—	44·7	—	59·3	—	18·0	—	50·6	·03
Hepatitis and Abscess of Liver	26·3	·47	35·6	1·44	22·1	1·18	23·3	·57	20·1	·72	23·5	—	31·8	·63	31·3	1·41	20·1	·56	21·8	1·03	29·5	·89	5·4	—	25·5	·83
Total	89·8	·47	111·9	1·44	101·0	1·18	158·0	·57	70·4	·72	143·8	—	94·6	1·25	107·1	1·64	80·8	·84	79·4	1·29	107·5	1·34	37·8	—	97·7	1·04

ABSTRACT No. XX.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE and MORTALITY in the Cantonments of the BENGAL COMMAND, due to DYSENTERY, DIARRHŒA, and HEPATITIS, in each Quarter of the Year 1884.

—		Dysentery.				Diarrhœa.				Hepatitis (including Abscess of Liver).				Total.			
		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.	
	Strength.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Ded.	Admitted.	Died.
1st Quarter -	33,470	122	1	3·7	·03	211	—	6·3	—	192	6	5·7	·18	525	7	15·7	·21
2nd „ -	34,137	188	—	5·5	—	255	—	7·5	—	229	3	6·7	·09	672	3	19·7	·09
3rd „ -	33,510	201	—	6·0	—	753	—	22·5	—	276	8	8·2	·24	1,230	8	36·7	·24
4th „ -	32,514	204	5	6·3	·15	388	1	11·9	·03	178	11	5·5	·34	770	17	23·7	·52
Total -	33,408	715	6	21·4	·18	1,607	1	48·1	·03	875	28	26·2	·84	3,197	35	95·7	1·05

ABSTRACT No. XXI.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the COMPARATIVE MORTALITY and INVALIDING in the THREE GRADES of COMMISSIONED OFFICERS, NON-COMMISSIONED OFFICERS, and PRIVATES during the Year 1884, and for the Ten previous Years in the BENGAL COMMAND:—*

Years.	Average Strength.			Number of Deaths.			Invalided.			Ratio per 1,000.					
										Deaths.			Invalids.		
	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
1874 - - -	1,443	3,815	33,836	23	65	477	64	148	1,235	15·94	17·04	14·10	44·35	38·79	36·50
1875 - - -	1,485	3,842	34,053	10	96	544	75	142	1,189	6·73	24·99	15·98	50·51	36·96	34·92
1876 - - -	1,735	3,820	33,417	39	95	503	96	178	1,257	22·48	24·87	15·05	55·33	46·60	37·62
1877 - - -	2,066	3,787	32,761	29	57	357	83	136	1,162	14·04	15·05	10·90	40·17	35·91	35·47
1878 - -	2,018	3,782	32,374	28	86	694	79	141	1,300	13·88	22·74	21·44	39·15	37·28	40·16
1879 - - -	2,010	4,266	34,615	74	183	1,444	124	204	1,437	36·82	42·90	41·72	61·69	47·82	41·51
1880 - - -	1,699	5,369	42,797	31	149	1,085	95	220	1,819	18·25	27·75	25·35	55·92	40·98	42·50
1881 - - -	1,116	4,524	33,373	17	95	561	76	204	1,571	15·23	21·00	16·81	68·10	45·09	47·07
1882 - - -	1,101	4,183	31,318	12	65	406	51	164	1,071	10·90	15·54	12·96	46·32	39·21	34·20
1883 - - -	1,106	4,242	30,001	26	51	333	46	109	941	23·51	13·02	11·01	41·59	25·70	31·37
Average for 10 years -	1,578	4,163	33,855	28·90	94·20	640·40	78·90	164·60	1298·20	18·31	22·63	18·92	50·00	39·54	38·35
1884 - - -	1,116	3,986	29,754	29	52	339	55	129	859	25·99	13·05	11·39	49·28	32·36	28·87
1884 { Killed in action and died of wounds received in battle - - - }				—	—	—	—	—	—	—	—	—	—	—	—
1884 { Number of deaths, excluding those killed in action and died from wounds received in battle - - - }				29	52	339	—	—	—	25·99	13·05	11·39	—	—	—

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* The figures in this Return, obtained from the Adjutant-General, do not agree with those in the other Returns compiled from the Station Hospital Returns.

ABSTRACT No. XXII.—Table showing the Average Strength, Admissions into
stationed at Madras during the year 1884, with the Ratios per

Orders.	Average Strength, 10,812.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers Small-pox	19	1	—	1	—	—	1·44
	Other -	13	—	—	—	—	—	·48
	Continued „ Enteric -	129	18	—	18	1	—	17·66
	Other -	910	—	—	—	1	—	26·95
	Paroxysmal Fevers -	866	—	—	—	1	—	30·13
	Cholera - - -	12	10	1	11	—	—	·14
	Other diseases - -	4	1	—	1	—	—	·10
	Total - -	1,953	30	1	31	3	—	76·90
	Constitutional Group.							
	Rheumatism - -	340	—	—	—	14	3	17·86
	Primary Syphilis - -	1,096	—	—	—	—	—	79·01
	Secondary „ - -	272	—	—	—	22	1	25·85
	Tubercular diseases -	59	4	2	6	25	18	8·57
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other diseases - -	24	1	—	1	2	—	1·82
	Total - -	1,791	5	2	7	63	22	133·11
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	160	10	—	10	23	21	12·18
2	Eye - - -	136	—	—	—	10	3	7·36
3	Ear - - -	148	—	—	—	5	5	8·18
4	Nose - - -	9	—	—	—	—	—	·69
5	Circulatory System -	158	1	1	2	52	42	12·02
6	Absorbent „ -	344	—	—	—	1	—	35·00
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System -	285	1	—	1	15	5	13·75
9	Digestive „ - -	2,478	29	1	30	61	16	122·50
10	Urinary System Gonorrhœa -	1,256	—	—	—	—	—	83·25
	Sequelæ of Gonorr.	188	—	—	—	5	—	10·62
	Other diseases -	151	1	1	2	5	5	4·83
11	Generative System - -	138	—	—	—	1	1	5·28
12	Organs of Locomotion -	66	—	—	—	4	4	4·78
13	Cellular Tissue - -	191	1	—	1	1	—	9·02
14	Cutaneous System - -	998	—	—	—	1	3	35·29
	III.—*Debility* -	221	1	1	2	87	20	13·01
	IV.—*Poisons* -	25	1	—	1	—	—	·88
	V.—*Injuries.*							
1	General - - -	1	7	—	7	—	—	·01
2	Local - - -	1,228	5	—	5	7	9	49·48
3	In action - - -	1	1	—	1	—	—	·02
	No appreciable disease -	34	—	—	—	—	—	1·36
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	11,960	93	7	100	350	156	639·52
	Average of 10 years, 1874–83	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average

HOSPITAL, DEATHS, NUMBERS INVALIDED, and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000, from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
1·8	·09	—	—	·13	·5	·04	—	—	·05
1·2	--	—	—	·04	·5	—	—	—	·02
11·9	1·66	·09	—	1·63	3·6	1·48	—	—	·43
84·2	—	·09	—	2·49	77·7	·21	—	—	2·43
80·1	—	·09	—	2·79	204·3	·34	·47	—	5·44
1·1	1·02	—	—	·01	2·0	1·14	—	—	·04
·3	·09	—	—	·01	1·9	·11	—	—	·06
180·6	2·87	·27	—	7·11	290·5	3·32	·47	—	8·47
31·4	—	1·30	·28	1·65	29·6	·02	·99	·53	1·55
101·4	—	—	—	7·31	105·9	—	·04	—	8·43
25·2	—	2·03	·09	2·39	23·1	·06	1·24	·67	2·12
5·4	·55	2·31	1·66	·80	6·5	·97	2·17	1·81	1·00
—	—	—	—	—	·1	—	—	—	·02
2·2	·09	·18	—	·16	3·4	·09	·47	·09	·30
165·6	·65	5·83	2·03	12·31	168·6	1·14	4·90	3·10	13·42
14·8	·93	2·68	1·94	1·13	15·4	1·41	3·23	·72	1·06
12·6	—	·93	·28	·68	15·3	—	·46	·47	·76
13·7	—	·46	·46	·76	10·9	—	·53	·47	·44
·8	—	—	—	·06	·5	—	·04	—	·02
14·6	·19	4·81	3·88	1·11	18·5	·78	4·50	2·28	1·54
31·8	—	·09	—	3·23	30·4	—	·08	·02	3·47
—	—	—	—	—	·1	—	—	—	—
26·4	·09	1·38	·46	1·27	32·1	·47	·82	·74	1·62
229·2	2·78†	5·64	1·48	11·33	239·9	3·33	7·57	2·02	11·67
116·2	—	—	—	7·70	100·7	—	—	—	6·46
17·4	—	·46	—	·98	13·9	—	·28	·08	1·00
14·0	·19	·46	·46	·44	8·0	·25	·27	·15	·32
12·8	—	·09	·09	·49	14·3	·06	·08	·06	·61
6·1	—	·37	·37	·44	5·5	—	·61	·40	·42
17·7	·09	·09	—	·84	17·8	·02	·19	·04	·76
92·3	—	·09	·28	3·27	76·2	--	·25	·17	3·11
20·4	·19	8·05	1·85	1·20	30·0	·02	6·25	2·93	1·85
2·3	·09	—	—	·08	3·1	·19	—	—	·11
·1	·65	—	—	—	·2	·68	·06	·02	·01
118·6	·46	·65	·83	4·58	101·9	·76	·95	·74	3·84
·1	·09	—	—	—	—	—	—	—	—
3·1	—	—	—	·13	1·7	—	—	—	·06
—	—	—	—	—	—	—	—	—	—
1106·2	9·25	32·37	14·43	59·14	1195·5	12·43	31·54	14·41	61·02
1173·8	15·06	40·03	12·80	58·16	—	—	—	—	—

ratios for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. XXIII. — TABLE showing the AVERAGE STRENGTH, AVERAGE CONSTANTLY SICK, ADMISSIONS, DEATHS, and INVALIDS at the different STATIONS and CIRCLES in the MADRAS COMMAND, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER.

Divisions.	Stations.	Average Strength.	Average constantly Sick.	Admitted.	Died in and out of Hospital.	Invalided.	Ratio per 1,000 of Strength.					
							Average constantly Sick.	Admitted.	Died (in and out).	Invalided.	Average of previous Period of 10 Years.	
											Admitted.	Died.
Eastern District	Madras and Palaveram.	737	*55	957	11	43	74·63	1298·51	14·92	58·34	1206·10	14·00
	St. Thomas' Mount	347	27	480	4	12	77·81	1383·28	11·53	34·58	1231·26	14·58
	Total	1,084	82	1,437	15	55	75·64	1325·64	13·84	50·74	—	—
Western District	Cannanore	719	44	595	5	39	61·20	827·54	6·95	54·24	1080·20	10·21
	Calicut	103	7	100	—	—	67·96	970·87	—	—	987·68	11·29
	Malliaporam	95	6	112	3	—	63·16	1178·95	31·58	—	796·16	8·54
	Total	917	57	807	8	39	62·16	880·04	8·72	42·53	—	—
Bangalore Division and Ceded Districts.	Bangalore	2,007	120	2,020	8	28	59·79	1006·48	3·98	13·95	1145·81	10·64
	Bellary	841	51	811	6	24	60·64	964·33	7·13	28·54	1476·98	9·96
	Total	2,848	171	2,831	14	52	60·04	994·03	4·91	18·27	—	—
Hyderabad Subsidiary Force.	Secunderabad	2,386	141	2,571	23	51	59·09	1077·53	9·64	21·37	1145·81	12·69
Nagpore Force	Kamptee	770	47	1,061	8	19	61·04	1377·92	10·39	24·67	1460·27	17·06
	Seetabuldee	55	1	39	1	—	18·18	709·09	18·18	—	1767·49	6·17
	Total	825	48	1,100	9	19	58·18	1333·33	10·91	23·03	—	—

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* Including the convalescent and detained.

ABSTRACT No. XXIII.—*continued.*

Divisions.	Stations.	Average Strength.	Average constantly Sick.	Admitted.	Died in and out of Hospital.	Invalided.	Ratio per 1,000 of Strength.					
							Average constantly Sick.	Admitted.	Died (in and out).	Invalided.	Average of previous Period of 10 Years.	
											Admitted.	Died.
British Burmah Division.	Rangoon	582	*39	904	7	14	67·01	1553·26	12·03	24·06	1298·11	13·65
	Thayetmyo	635	22	586	3	14	34·64	922·83	4·72	22·05	1048·36	14·12
	Toungoo	428	30	542	3	10	70·09	1266·35	7·01	23·36	1060·99	13·38
	Port Blair	141	4	97	—	—	28·37	687·94	—	—	904·68	7·69
	Thoudoungee	18	1	13	—	—	55·55	722·22	—	—	—	—
	Total	1,804	96	2,142	13	38	53·21	1187·36	7·20	21·06	—	—
Depôts	Poonamallee	157	40	305	7	59	254·78	1942·67	44·58	375·80	2113·68	49·97
	Wellington	554	48	657	2	37	86·64	1185·92	3·61	66·79	1137·36	15·17
	Ootacamond Military Prison	10	1	13	—	—	100·00	1300·00	—	—	—	—
	Total	721	89	975	9	96	123·44	1352·28	12·48	133·15	—	—
Marchin	On the march	227	2	97	2	—	8·81	427·31	8·81	—	555·84	53·81

* Including the convalescent and detained.

ABSTRACT No. XXIV.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL
in each of the MILITARY DIVISIONS in the MADRAS

Orders.	Military Divisions.	Eastern District.		Western District.		Bangalore Division and Ceded Districts.		Hyderabad Subsidiary Force.		Nagpore Force.		British Burmah Division.		Depôts.		On the March.		Total.	
	Average Strength - -	1,084		917		2,848		2,386		825		1,804		721		227		10,812	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																		
	Febrile group—																		
	Eruptive Fevers { Small-Pox -	4	—	—	—	9	1	2	—	2	—	1	—	—	—	1	—	19	1
	Eruptive Fevers { Other - -	4	—	1	—	2	—	1	—	—	—	4	—	1	—	—	—	13	—
	Continued Fevers { Enteric -	1	1	5	2	63	2	39	10	15	3	4	—	1	—	1	—	129	18
	Continued Fevers { Other -	152	—	48	—	146	—	148	—	36	—	351	—	26	—	3	—	910	—
	Paroxysmal Fevers -	11	—	7	—	109	—	114	—	427	—	151	—	44	—	3	—	866	—
	Cholera - - -	4	4	—	—	4	3	2	1	1	1	—	—	1	1	—	—	12	10
	Other Diseases - -	—	—	—	—	—	—	1	—	—	—	1	—	2	1	—	—	4	1
	Total of Febrile group -	176	5	61	2	333	6	307	11	481	4	512	—	75	2	8	—	1,953	30
	Constitutional group—																		
	Rheumatism - -	23	—	18	—	74	—	77	—	11	—	91	—	41	—	5	—	340	—
	Primary syphilis - -	152	—	123	—	389	—	133	—	24	—	153	—	99	—	23	—	1,096	—
	Secondary „ - -	26	—	12	—	70	—	52	—	13	—	39	—	58	—	2	—	272	—
	Tubercular diseases -	3	—	2	—	8	—	8	—	11	—	13	3	12	1	2	—	59	4
	Scurvy and Purpura -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other Diseases - -	—	—	5	—	3	—	2	—	2	—	8	—	4	1	—	—	24	1
	Total of constitutional group - - -	204	—	160	—	544	—	272	—	61	—	304	3	214	2	32	—	1,791	5
	II. *Local Diseases.*																		
	Diseases of the—																		
1	Nervous System - -	15	2	17	2	29	2	29	—	25	3	25	—	19	—	1	1	160	10
2	Eye - - - -	8	—	7	—	43	—	41	—	15	—	13	—	9	—	—	—	136	—
3	Ear - - - -	18	—	12	—	26	—	41	—	11	—	30	—	10	—	—	—	148	—
4	Nose - - -	—	—	1	—	6	—	1	—	1	—	—	—	—	—	—	—	9	—
5	Circulatory System -	27	—	13	—	25	1	29	—	7	—	28	—	29	—	—	—	158	1
6	Absorbent „ -	51	—	39	—	122	—	53	—	3	—	40	—	32	—	4	—	344	—
7	Ductless Glands - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Respiratory System -	37	1	22	—	53	—	52	—	17	—	70	—	32	—	2	—	285	—
9	Digestive „ -	353	4	180	2	520	—	596	10	117	2	412	5	283	5	17	1	2,478	29
10	Urinary System { Gonorrhœa -	157	—	87	—	353	—	342	—	109	—	136	—	64	—	8	—	1,256	—
	Urinary System { Sequelæ of Gonorr.	20	—	21	—	30	—	52	—	24	—	27	—	13	—	1	—	188	—
	Urinary System { Other diseases -	21	—	11	—	26	1	40	—	21	—	16	—	15	—	1	—	151	1
11	Generative System -	18	—	8	—	29	—	34	—	5	—	35	—	5	—	4	—	138	—
12	Organs of Locomotion -	3	—	1	—	21	—	14	—	5	—	15	—	7	—	—	—	66	—
13	Cellular Tissue - -	26	—	27	—	46	1	38	—	8	—	32	—	11	—	3	—	191	1
14	Cutaneous System -	177	—	59	—	197	—	227	—	81	—	203	—	49	—	5	—	998	—
	III. *Debility* -	23	—	18	—	81	—	31	—	4	—	20	1	41	—	3	—	221	1
	IV. *Poisons* -	2	—	1	—	7	1	—	—	—	—	14	—	—	—	1	—	25	1
	V. *Injuries.*																		
1	General - - -	—	1	—	—	1	1	—	1	—	—	—	4	—	—	—	—	1	
2	Local - - -	94	2	58	1	330	1	366	1	103	—	209	—	61	—	7	—	1,228	
3	In action - - -	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	1	
	No appreciable Disease -	7	—	3	—	9	—	6	—	2	—	1	—	6	—	—	—	34	—
	Cause unknown - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	General Total -	1,437	15	807	8	2,831	14	2,571	23	1,100	9	2,142	13	975	9	97	2	11,960	93

OFFICER, showing the PREVALENCE and MORTALITY of the different Classes of DISEASES
COMMAND, with the Ratios per 1,000 of the Strength.

Eastern District.		Western District.		Bangalore Division and Ceded Districts.		Hyderabad Subsidiary Force.		Nagpore Force.		British Burmah Division.		Depôts.		On the March.		Total.	
Ratio per 1,000 of Mean Strength.																	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
3·69	—	—	—	3·16	0·35	0·84	—	2·42	—	0·55	—	—	—	4·41	—	1·76	0·09
3·69	—	1·09	—	0·70	—	0·42	—	—	—	2·22	—	1·39	—	—	—	1·20	—
0·92	0·92	5·45	2·18	22·12	0·70	16·34	4·19	18·18	3·64	2·22	—	1·39	—	4·41	—	11·93	1·66
140·22	—	52·34	—	51·26	—	62·03	—	43·64	—	194·56	—	36·06	—	13·22	—	84·17	—
10·15	—	7·63	—	38·27	—	47·78	—	517·58	—	83·70	—	61·03	—	13·22	—	80·10	—
3·69	3·69	—	—	1·40	1·05	0·84	0·42	1·21	1·21	—	—	1·39	1·39	—	—	1·10	0·92
—	—	—	—	—	—	0·42	—	—	—	0·55	—	2·77	1·39	—	—	0·37	0·09
162·36	4·61	66·52	2·18	116·92	2·10	128·67	4·61	583·03	4·85	283·81	—	104·02	2·77	35·24	—	180·63	2·77
21·22	—	19·63	—	25·98	—	32·27	—	13·33	—	50·44	—	56·87	—	22·03	—	31·45	—
140·22	—	134·13	—	136·59	—	55·74	—	29·09	—	84·81	—	137·31	—	101·32	—	101·37	—
23·98	—	13·09	—	24·58	—	21·79	—	15·76	—	21·62	—	80·44	—	8·81	—	25·16	—
2·77	—	2·18	—	2·81	—	3·35	—	13·33	—	7·21	1·66	16·64	1·39	8·81	—	5·45	0·37
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	5·45	—	1·05	—	0·84	—	2·42	—	4·43	—	5·55	1·39	—	—	2·22	0·09
188·19	—	174·48	—	191·01	—	114·00	—	73·94	—	168·51	1·66	296·81	2·77	140·97	—	165·65	0·46
13·84	1·85	18·54	2·18	10·18	0·70	12·15	—	30·30	3·64	13·86	—	26·35	—	4·41	4·41	14·80	0·92
7·38	—	17·63	—	15·10	—	17·18	—	18·18	—	7·21	—	12·48	—	—	—	12·58	—
16·60	—	13·09	—	9·13	—	17·18	—	13·33	—	16·63	—	13·87	—	—	—	13·69	—
—	—	1·09	—	2·11	—	0·42	—	1·21	—	—	—	—	—	—	—	0·83	—
24·91	—	14·18	—	8·78	0·35	12·15	—	8·48	—	15·52	—	40·22	—	—	—	14·61	0·09
47·06	—	42·53	—	42·84	—	22·21	—	3·64	—	22·17	—	44·38	—	17·62	—	31·82	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
34·13	0·92	23·99	—	18·61	—	21·79	—	20·61	—	38·81	—	44·38	—	8·81	—	26·36	0·09
325·64	3·69	196·29	2·18	182·58	—	249·79	4·19	141·82	2·42	228·38	2·77	392·51	6·93	74·89	4·41	229·19	2·68
144·83	—	94·87	—	123·95	—	143·34	—	132·12	—	75·39	—	88·76	—	35·24	—	116·17	—
18·45	—	22·90	—	10·53	—	21·79	—	29·09	—	14·97	—	18·03	—	4·41	—	17·39	—
19·37	—	12·00	—	9·13	0·35	16·76	—	25·45	—	8·87	—	20·81	—	4·41	—	18·97	0·09
16·60	—	8·72	—	10·18	—	14·25	—	6·06	—	19·40	—	6·93	—	17·62	—	12·76	—
2·77	—	1·09	—	7·37	—	5·87	—	6·06	—	8·31	—	9·71	—	—	—	6·10	—
23·99	—	29·44	—	16·15	0·35	15·93	—	9·70	—	17·74	—	15·26	—	13·22	—	17·67	0·09
163·28	—	64·34	—	69·17	—	95·14	—	98·18	—	112·53	—	67·96	—	22·03	—	92·31	—
21·22	—	19·63	—	28·44	—	12·99	—	4·85	—	11·09	0·55	56·87	—	13·22	—	20·44	0·09
1·85	—	1·09	—	2·46	0·35	—	—	—	—	7·76	—	—	—	4·41	—	2·31	0·09
—	0·92	—	—	0·35	0·35	—	0·42	—	—	—	2·21	—	—	—	—	0·09	0·65
86·72	1·85	63·25	1·09	115·87	0·35	153·39	0·42	124·85	—	115·85	—	84·61	—	30·83	—	113·58	0·46
—	—	1·09	1·09	—	—	—	—	—	—	—	—	—	—	—	—	0·09	0·09
6·46	—	3·27	—	3·16	—	2·52	—	2·42	—	0·55	—	8·32	—	—	—	3·14	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1325·64	13·84	880·04	8·72	994·03	4·91	1077·53	9·64	1333·33	10·91	1187·36	7·20	1352·28	12·48	427·31	8·81	1106·18	8·60

ABSTRACT No. XXV.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the STATIONS in the MADRAS COMMAND at which the ADMISSIONS and DEATHS from ENTERIC FEVER took place in each of the four quarters of the year 1884.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eastern District -	St. Thomas' Mount.	—	—	1	1	—	—	—	—	1	1
Western District -	Cannanore	1	1	—	—	—	—	3	—	4	1
	Malliaporam	—	—	—	—	1	1	—	—	1	1
Bangalore Division and Ceded District -	Bangalore -	8	—	12	—	35	1	5	—	60	1
	Bellary -	3	1	—	—	—	—	—	—	3	1
	Wellington	—	—	—	—	1	—	—	—	1	—
Hyderabad Subsidiary Force.	Secunderabad	3	1	12	3	17	5	7	1	39	10
Nagpore Force -	Kamptee -	—	—	1	—	11	2	3	1	15	3
British Burmah Division -	Thayetmyo	—	—	—	—	—	—	1	—	1	—
	Port Blair -	—	—	—	—	—	—	3	—	3	—
Marching - -	On the march	—	—	—	—	—	—	1	—	1	—
	Total -	15	3	26	4	65	9	23	2	129	18

ABSTRACT No. XXVI.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the STATIONS in the MADRAS COMMAND at which the ADMISSIONS and DEATHS from CHOLERA took place in each of the four quarters of the year 1884.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eastern District	Madras -	—	—	—	—	3	3	—	—	3	3
	St. Thomas' Mount.	—	—	—	—	1	1	—	—	1	1
	Poonamallee	—	—	—	—	1	1	—	—	1	1
Bangalore Division.	Bangalore -	—	—	—	—	—	—	4	3	4	3
Hyderabad Subsidiary Force.	Secunderabad	1	—	—	—	—	—	1	1	2	1
Nagpore Force -	Kamptee -	—	—	1	1	—	—	—	—	1	1
	Total -	1	—	1	1	5	5	5	4	12	10

ABSTRACT No. XXVII.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the prevalence of DYSENTERY, DIARRHŒA, and HEPATITIS in each of the DIVISIONS in the MADRAS COMMAND for 1884:—

Circles.	Eastern District.		Western District.		Bangalore Division and Ceded Districts.		Hyderabad Subsidiary Force.		Nagpore Force.		British Burmah Division.		On the March.		Total.	
Strength.	1,241		917		3,412		2,386		825		1,804		227		10,812	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery - - - - - -	207	2	60	—	71	—	136	—	13	—	107	2	8	—	602	4
Diarrhœa - - - - - -	70	—	34	—	99	—	121	1	31	—	92	—	5	—	452	1
Hepatitis and Abscess of Liver - -	100	6	22	2	46	1	72	9	7	1	62	3	1	1	310	23
Total - - - -	377	8	116	2	216	1	329	10	51	1	261	5	14	1	1,364	28
Ratio per 1,000 of Strength.																
Dysentery - - - - - -	166·80	1·61	65·43	—	20·81	—	57·00	—	15·76	—	59·31	1·11	35·24	—	55·68	0·37
Diarrhœa - - - - -	56·41	—	37·08	—	29·02	—	50·71	0·42	37·58	—	51·00	—	22·03	—	41·81	0·09
Hepatitis and Abscess of Liver - -	80·58	4·83	23·99	2·18	13·48	2·93	30·18	3·77	8·48	1·21	34·37	1·66	4·40	4·40	28·67	2·13
Total - - - -	303·79	6·44	126·50	2·18	63·31	2·93	137·89	4·19	61·82	1·21	144·68	2·77	61·67	4·40	126·16	2·59

ABSTRACT No. XXVIII.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE and MORTALITY in the MADRAS COMMAND, due to DYSENTERY, DIARRHŒA, and HEPATITIS, in each Quarter of the Year 1884.

—	Strength.	Dysentery.				Diarrhœa.				Hepatitis (including Abscess of the Liver).				Total.			
		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1st Quarter -	10,368	133	—	12·83	—	85	—	8·20	—	73	5	7·04	0·48	291	5	28·07	0·48
2nd „ -	10,998	115	1	10·46	0·09	106	—	9·64	—	66	3	6·00	0·27	287	4	26·10	0·36
3rd „ -	11,083	192	—	17·32	—	154	1	13·89	0·09	67	9	6·05	0·81	413	10	37·26	0·90
4th „ -	10,797	162	3	15·00	0·28	107	—	9·91	—	104	6	9·63	0·55	373	9	34·54	0·83
Total for the Year	10,812*	602	4	55·68	0·37	452	1	41·81	0·09	310	23	28·67	2·13	1,364	28	126·16	2·59

* Average Annual Strength.

ABSTRACT XXIX.

ABSTRACT No. XXIX.—The following TABLE, taken from the REPORT of the
and INVALIDING for the YEAR under

Years.	Average Strength.			Number of Deaths.		
	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
1874 - - -	419	1,785	10,215	8	27	122
1875 - - -	398	1,698	9,779	11	32	131
1876 - - -	405	1,670	9,671	7	31	148
1877 - - -	454	1,700	9,641	6	46	142
1878 - - -	442	1,665	9,491	9	55	178
1879 - - -	433	1,660	9,744	8	33	140
1880 - - -	473	1,611	9,503	5	8	92
1881 - - -	425	1,555	9,108	4	21	93
1882 - - -	525	1,205	10,001	3	19	95
1883 - - -	388	1,213	9,426	3	28	80
Average for 10 years -	436	1,576	9,657	5	30	121
1884 - - -	375	1,268	9,682	4	20	73

Principal Medical Officer of Madras, shows the comparative Mortality Report and for the Ten previous Years.

Invalided.			Ratio per 1,000 of Strength.					
			Deaths.			Invalids.		
Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
33	48	555	7·16	15·12	11·94	78·76	26·89	54·83
38	61	532	27·64	18·84	13·39	95·48	35·92	54·39
34	65	413	17·28	18·56	14·79	83·95	38·92	42·70
33	63	447	13·22	27·05	14·73	72·69	37·59	46·35
29	57	441	20·36	33·03	18·75	65·61	34·23	46·44
26	62	405	6·98	19·88	14·36	60·05	37·35	41·56
40	12	226	10·57	4·96	9·68	84·56	7·45	23·78
24	33	253	9·41	13·51	10·21	56·47	21·22	27·78
27	44	277	5·71	15·77	9·49	51·43	36·51	27·70
26	48	299	7·73	23·08	8·48	67·01	39·57	31·72
31	49	384	12·38	19·03	12·59	71·07	31·28	39·84
25	60	290	10·66	15·77	7·54	66·67	47·32	29·95

ABSTRACT No. XXX.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS
TROOPS stationed at BOMBAY during the Year 1884, with the Ratios

Orders.	Average Strength, 10,724.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	8	1	—	1	—	—	·61
	Eruptive Fevers { Other	7	—	—	—	—	—	·55
	Continued „ { Enteric	97	22	—	22	1	—	11·00
	Continued „ { Other	1,208	9	—	9	1	—	44·41
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	3,917	13	1	14	15	—	117·19
	Cholera	66	51	1	52	—	—	·56
	Other diseases	49	2	1	3	—	—	2·55
	Total	5,352	98	3	101	17	—	176·87
	Constitutional Group.							
	Rheumatism	291	—	—	—	14	5	19·28
	Primary Syphilis	966	—	—	—	—	—	65·83
	Secondary „	204	—	—	—	8	2	16·92
	Tubercular diseases	87	6	5	11	35	11	10·19
	Scurvy and Purpura	19	—	—	—	1	—	·64
	Other diseases	32	1	1	2	2	—	2·30
	Total	1,599	7	6	13	60	18	115·16
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	191	18	—	18	34	14	13·74
2	Eye	155	—	—	—	4	4	9·35
3	Ear	115	—	—	—	5	5	6·70
4	Nose	11	—	—	—	—	—	·41
5	Circulatory System	181	1	3	4	34	23	14·55
6	Absorbent „	175	—	—	—	—	—	11·83
7	Ductless Glands	1	—	—	—	—	—	·10
8	Respiratory System	437	15	1	16	9	4	19·83
9	Digestive „	2,291	29	3	32	45	2	89·55
10	Urinary System { Gonorrhœa	1,302	—	—	—	—	—	83·85
	Urinary System { Sequelæ of Gonorr.	289	—	—	—	5	—	18·07
	Urinary System { Other diseases	126	2	—	2	6	1	6·53
11	Generative System	100	—	—	—	—	1	4·24
12	Organs of Locomotion	90	1	—	1	20	8	6·13
13	Cellular Tissue	205	—	—	—	2	—	8·89
14	Cutaneous System	837	—	—	—	2	1	32·35
	III.—*Debility*	392	1	—	1	77	14	22·37
	IV.—*Poisons*	101	—	—	—	—	—	2·92
	V.—*Injuries.*							
1	General	13	13	—	13	—	—	·67
2	Local	1,202	11	—	11	18	13	49·39
3	In action	—	—	—	—	—	—	—
	No appreciable disease	13	—	—	—	—	—	·40
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	15,178	196	16	212	338	108	693·90
	Average for 10 years, 1874-83	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios

into Hospital, Deaths, Numbers Invalided and Constantly Sick among the per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000, from 1879 to 1883.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
·8	·09	—	—	·06	·3	·04	—	—	·07
·7	—	—	—	·05	·8	—	—	—	
9·0	2·05	·09	—	1·02	4·3	2·04	·08	—	3·43
112·6	·84	·09	—	4·14	113·6	·16	·06	—	
—	—	—	—	—	—	—	—	—	—
365·2	1·30	1·41	—	10·92	702·2	1·72	7·41	·04	16·41
6·2	4·85	—	—	·05	·7	·44	—	—	·01
4·6	·28	—	—	·24	4·4	·16	—	·02	·18
499·1	9·41	1·59	—	16·49	826·3	4·55	7·55	·06	20·10
27·1	—	1·30	·47	1·80	34·8	·14	1·62	·38	1·76
90·1	—	—	—	6·14	83·0	·02	—	—	5·81
19·0	—	·75	·19	1·58	22·5	—	1·49	·63	1·64
8·1	1·03	3·26	1·03	·95	7·2	1·21	2·60	2·08	·71
1·8	—	·09	—	·06	1·3	·02	—	—	·06
3·0	·19	·19	—	·21	3·9	·18	·53	·26	·28
149·1	1·21	5·59	1·69	10·74	152·7	1·56	6·24	3·35	10·26
17·8	1·68	3·17	1·30	1·28	15·3	1·80	2·69	·67	1·00
14·5	—	·37	·37	·87	14·9	—	·61	·77	·78
10·7	—	·47	·47	·62	10·5	—	·51	·63	·44
1·0	—	—	—	·04	·7	—	—	—	·03
16·9	·37	3·17	2·14	1·36	16·8	·67	4·48	3·35	1·40
16·3	—	—	—	1·10	20·3	—	·04	—	1·66
·1	—	—	—	·01	·1	—	·02	·02	·05
40·7	1·49	·84	·37	1·85	51·8	1·56	1·27	·91	2·45
213·6	2·99	4·19	·19	8·35	210·7	3·41	6·74	1·94	7·93
121·4	—	—	—	7·82	97·6	—	—	—	5·71
27·0	—	·47	—	1·68	16·0	—	·10	·08	1·00
11·8	·19	·56	·09	·61	9·7	·24	·44	·22	·52
9·3	—	—	·09	·40	10·2	—	·20	·18	·48
8·4	·09	1·86	·75	·57	4·3	·06	·46	·50	·27
19·1	—	·19	—	·83	17·5	·02	·04	·06	·78
78·0	—	·19	·09	3·02	69·7	—	·39	·26	2·71
36·6	·09	7·18	1·30	2·09	43·8	·06	14·21	3·41	2·24
9·4	—	—	—	·27	5·6	·18	—	—	·13
1·2	1·21	—	—	·06	·3	·59	·02	—	·02
112·1	1·03	1·68	1·21	4·60	103·5	·87	·91	·65	3·61
—	—	—	—	—	·2	—	·18	—	·01
1·2	—	—	—	·04	1·4	—	—	—	·05
—	—	—	—	—	—	—	—	—	—
1415·3	19·76	31·52	10·07	64·70	1699·9	15·59	47·10	17·05	63·63
1554·5	15·92	49·09	16·15	60·19	—	—	—	—	—

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for the six years 1879 to 1884 will be given in the Report for 1885.

ABSTRACT No. XXXI.—The following TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, shows the ADMISSIONS and DEATHS in the PRINCIPAL STATIONS in the BOMBAY COMMAND.

Administrative Circles.	Stations.	Average Annual Strength.	Number of Admissions.	Number of Deaths.	Ratio per 1,000 of the Strength.			
					Admissions.	Deaths.	Average of 10 Years, 1874–83. Admissions.	Average of 10 Years, 1874–83. Deaths.
Presidency	Colaba	783	861	4	1099·6	5·11	1907·6	18·06
	Deolalee	424	448	12	1056·6	28·30	1362·4	19·25
	Belgaum	760	673	3	885·5	3·95	1186·4	8·31
	Aden	701	842	6	1201·1	8·56	963·8	13·37
Sind	Karachi	692	1,022	8	1476·9	11·56	1905·7	18·87
	Hyderabad	306	603	10	1970·6	32·68	1539·6	9·64
Poona	Poona	1,050	1,153	10	1098·1	9·52	1620·5	11·86
	Kirkee	663	737	11	1111·6	16·59	1550·9	11·44
	Ahmednagar	398	708	2	1778·9	5·02	1617·9	14·00
	Satara	130	152	—	1169·2	—	1521·3	7·28
	Kholapur	90	151	—	1677·8	—	1230·4	16·76
Mhow	Mhow	1,190	2,148	8	1805·0	6·72	1820·2	10·43
	Nasserabad	474	621	12	1310·1	25·32	1704·6	22·46
	Neemuch	320	629	2	1965·6	6·25	2272·2	21·92
	Asirgurh	127	211	—	1661·4	—	1707·8	15·88
	Indore	109	196	—	1798·1	—	2112·1	1·37
	Ahmedabad	212	244	2	1150·9	9·43	1884·4	22·78
	Baroda	128	215	6	1679·7	46·88	2620·0	19·97
	Deesa	317	394	3	1242·9	9·46	1295·3	13·18
	Khundwa	2	3	1	1500·0	500·00	1000·0	500·00
Quetta	Quetta	1,075	2,151	41	2000·9	38·14	*941·6	*13·17
	Sanitaria	196	487	2	2484·7	10·20	2102·1	29·91
	On March	577	529	61	916·8	105·72	809·1	11·51
	Total	10724	15178	204	1415·3	19·02	—	—

* For one year only.

ABSTRACTS XXXII. to XXXVI.

ABSTRACT No. XXXII.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL of DISEASES in each of the ADMINISTRATIVE CIRCLES in the BOMBAY

	Military Divisions	Presidency.		Sind.		Poona.		Mhow.		Quetta.		Sanitaria		Troops on March.		Total.	
	Average Strength	2,668		998		2,331		2,879		1,075		196		577		10,724	
Orders.	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																
	Febrile Group.																
	Eruptive Fevers, Small-pox	7	—	—	—	—	—	—	—	1	1	—	—	—	—	8	1
	Eruptive Fevers, Other	3	—	—	—	1	—	3	—	—	—	—	—	—	—	7	—
	Continued Fevers, Enteric	8	1	28	3	14	1	15	6	30	10	—	—	2	1	97	22
	Continued Fevers, Other	204	1	276	—	261	7	141	1	283	—	33	—	10	—	1,208	9
	Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Paroxysmal Fevers	460	2	351	2	573	—	1,703	—	544	6	115	—	171	4	3,917	14
	Cholera	6	4	—	—	1	1	9	6	—	—	—	—	50	41	66	52
	Other diseases	8	—	—	—	2	—	13	—	18	2	6	—	2	—	49	2
	Total of Febrile group	696	8	655	5	852	9	1,884	13	876	19	154	—	235	46	5,352	100
	Constitutional Group.																
	Rheumatism	75	—	24	—	64	—	62	—	42	—	12	—	12	—	291	—
	Primary Syphilis	209	—	65	—	216	—	330	—	106	—	17	—	23	—	966	—
	Secondary „	57	—	37	—	38	—	46	—	10	—	13	—	3	—	204	—
	Tubercular diseases	31	3	8	—	21	1	16	1	5	2	6	1	—	—	87	8
	Scurvy and Purpura	1	—	4	—	1	—	5	—	5	—	3	—	—	—	19	—
	Other diseases	8	—	3	1	6	—	11	—	8	—	1	—	—	—	32	1
	Total of Constitutional Group.	381	3	141	1	346	1	470	1	171	2	52	1	38	—	1,599	9
	II. *Local Diseases.*																
	Diseases of the—																
1	Nervous System	57	4	16	4	28	2	42	2	21	1	8	—	19	5	191	18
2	Eye	33	—	22	—	32	—	47	—	11	—	8	—	2	—	155	—
3	Ear	27	—	19	—	15	—	39	—	12	—	2	—	1	—	115	—
4	Nose	4	—	—	—	1	—	3	—	2	—	2	—	—	—	12	—
5	Circulatory System	43	2	12	—	41	—	55	—	19	—	10	—	1	1	181	3
6	Absorbent „	44	—	10	—	55	—	41	—	14	—	9	—	2	—	175	—
7	Ductless Glands	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—
8	Respiratory System	72	1	48	1	69	2	129	1	82	4	9	1	27	5	436	15
9	Digestive „	360	4	234	5	456	3	537	6	523	11	78	—	103	2	2,291	31
10	Urinary System. Gonorrhœa	342	—	99	—	332	—	396	—	81	—	21	—	31	—	1,302	—
	Urinary System. Sequelæ of Gon.	92	—	28	—	53	—	79	—	11	—	14	—	12	—	289	—
	Urinary System. Other diseases	27	1	11	—	34	—	44	—	8	1	1	—	1	—	126	2
11	Generative System	23	—	5	—	24	—	32	—	12	—	3	—	1	—	100	—
12	Organs of Locomotion	16	—	6	—	40	1	18	—	7	—	3	—	—	—	90	1
13	Cellular Tissue	54	—	10	—	30	—	65	—	31	—	6	—	9	—	205	—
14	Cutaneous System	227	—	110	—	151	—	239	—	83	—	12	—	15	—	837	—
	III. *Debility*	30	—	45	—	80	—	119	—	31	1	69	—	18	—	392	1
	IV. *Poisons*	42	—	9	—	10	—	16	—	22	—	1	—	1	—	101	—
	V. *Injuries.*																
1	General	—	1	1	1	2	1	8	8	2	—	—	—	—	2	13	13
2	Local	254	1	139	1	247	4	394	3	130	2	25	—	13	—	1,202	11
3	In action	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—
	No appreciable disease	—	—	—	—	2	—	4	—	2	—	—	—	—	—	13	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	2,824	25	1,625	18	2,901	23	4,661	34	2,151	41	487	2	529	61	15,178	204

Officer, showing the **Prevalence** and **Mortality** of the Different Classes **Command**, with the Ratios per 1,000 of the Strength.

Presidency.		Sind.		Poona.		Mhow.		Quetta.		Sanitaria.		Troops on March.		Total.	
Ratio per 1,000 of mean Strength.															
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
2·6	—	—	—	—	—	—	—	·9	·93	—	—	—	—	·7	·09
1·1	—	—	—	·4	—	1·0	—	—	—	—	—	—	—	·7	—
3·0	·37	28·1	3·01	6·0	·43	5·2	2·08	27·9	9·30	—	—	3·5	1·73	9·0	2·05
76·5	·37	276·6	—	112·0	3·00	49·0	·35	263·2	—	168·4	—	17·3	—	112·6	·84
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
172·4	·75	351·7	2·00	245·8	—	591·5	—	506·0	5·58	586·7	—	296·5	6·93	365·2	1·30
2·2	1·50	—	—	·4	·43	3·1	2·08	—	—	—	—	86·7	71·06	6·2	4·85
3·0	—	—	—	·9	—	4·5	—	16·7	1·86	30·6	—	3·5	—	4·6	·19
260·9	3·00	656·3	5·01	365·5	3·86	654·3	4·51	814·9	17·67	785·7	—	407·3	79·72	499·1	9·32
28·1	—	24·0	—	27·4	—	21·5	—	30·1	—	61·2	—	20·8	—	27·1	—
78·3	—	65·1	—	92·7	—	114·6	—	98·6	—	86·7	—	39·9	—	90·1	—
21·4	—	37·1	—	16·3	—	16·0	—	9·3	—	66·3	—	5·2	—	19·0	—
11·6	1·12	8·0	—	9·0	·43	5·6	·35	4·7	1·86	30·6	5·10	—	—	8·1	·75
·4	—	4·0	—	·4	—	1·7	—	4·7	—	15·3	—	—	—	1·8	—
3·0	—	3·0	1·00	2·6	—	3·8	—	2·8	—	5·1	—	—	—	3·0	·09
142·8	1·12	141·3	1·00	148·4	·43	163·2	·35	159·1	1·86	265·3	5·10	65·9	—	149·1	·84
21·4	1·50	16·0	4·01	12·0	·86	14·6	·69	19·5	·93	40·8	—	32·9	8·67	17·8	1·68
12·4	—	22·0	—	13·7	—	16·3	—	10·2	—	40·8	—	3·5	—	14·5	—
10·1	—	19·0	—	6·4	—	13·5	—	11·2	—	10·2	—	1·7	—	10·7	—
1·5	—	—	—	·4	—	1·0	—	1·9	—	10·2	—	—	—	1·0	—
16·1	·75	12·0	—	17·6	—	19·1	—	17·7	—	51·0	—	1·7	1·73	16·9	·28
16·5	—	10·0	—	23·6	—	14·2	—	13·0	—	45·9	—	3·5	—	16·3	—
—	—	—	—	·4	—	—	—	—	—	—	—	—	—	·1	—
27·0	·37	48·1	1·00	29·6	·86	44·8	·35	76·3	3·72	45·9	5·10	46·8	8·67	40·7	1·40
134·9	1·50	234·5	5·01	195·6	1·29	186·5	2·08	486·5	10·23	398·0	—	178·5	3·47	213·6	2·89
128·2	—	99·2	—	142·4	—	137·5	—	75·3	—	107·1	—	53·7	—	121·4	—
34·5	—	28·1	—	22·7	—	27·4	—	10·2	—	71·4	—	20·8	—	26·9	—
10·1	·37	11·0	—	14·6	—	15·3	—	7·4	·93	5·1	—	1·7	—	11·8	·19
8·6	—	5·0	—	10·3	—	11·1	—	11·2	—	15·3	—	1·7	—	9·3	—
6·0	—	6·0	—	17·2	·43	6·2	—	6·5	—	15·3	—	—	—	8·4	·09
20·2	—	10·0	—	12·9	—	22·6	—	28·8	—	30·6	—	15·6	—	19·1	—
85·1	—	110·2	—	64·8	—	83·0	—	77·2	—	61·2	—	26·0	—	78·0	—
11·2	—	45·1	—	34·3	—	41·3	—	28·8	·93	352·0	—	31·2	—	36·5	·09
15·7	—	9·0	—	4·3	—	5·6	—	20·5	—	5·1	—	1·7	—	9·4	—
—	·37	1·0	1·00	·9	·43	2·8	2·78	1·9	—	—	—	—	3·47	1·2	1·21
95·2	·37	139·3	1·00	106·0	1·72	136·8	1·04	120·9	1·86	127·6	—	22·5	—	112·1	1·03
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	5·0	—	·9	—	1·4	—	1·9	—	—	—	—	—	1·2	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1058·4	9·37	1628·2	18·03	1244·5	9·87	1618·9	11·80	2000·9	38·14	2484·7	10·20	916·8	105·72	1415·3	19·02

ABSTRACT No. XXXIII.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the STATIONS in the BOMBAY COMMAND at which the ADMISSIONS and DEATHS from ENTERIC FEVER took place in each of the four quarters of the Year 1884.

Circles.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Presidency	Colaba	2	—	1	—	1	—	—	—	4	—
	Belgaum	—	—	3	1	1	—	—	—	4	1
Sind	Karachi	11	1	6	1	6	—	5	1	28	3
Poona	Poona	—	—	1	—	2	1	1	—	4	1
	Ahmednagar	—	—	1	—	9	—	—	—	10	—
Mhow	Mhow	—	—	3	2	1	—	1	—	5	2
	Nasirabad	—	—	—	—	1	1	3	—	4	1
	Neemuch	—	—	1	—	—	—	—	—	1	—
	Baroda	—	—	2	1	—	—	—	—	2	1
	Deesa	1	—	2	2	—	—	—	—	3	2
Quetta	Quetta	—	—	—	—	24	7	6	3	30	10
	On the March	—	—	—	—	1	—	1	1	2	1
	Total	14	1	20	7	46	9	17	5	97	22

ABSTRACT No. XXXIV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the STATIONS in the BOMBAY COMMAND at which the ADMISSIONS and DEATHS from CHOLERA took place in each of the four quarters of the Year 1884.

Circles.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Presidency	Deolalee	—	—	2	1	—	—	4	3	6	4
Poona	Poona	—	—	—	—	—	—	1	1	1	1
Mhow	Mhow	—	—	—	—	3	3	—	—	3	3
	Nasirabad	—	—	—	—	1	1	—	—	1	1
	Neemuch	—	—	—	—	2	1	—	—	2	1
	Baroda	—	—	1	—	—	—	—	—	1	—
	Khundwa	—	—	—	—	—	—	2	1	2	1
	On the March	—	—	—	—	1	1	49	40	50	41
	Total	—	—	3	1	7	6	56	45	66	52

ABSTRACT No. XXXV.—Table taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE of DYSENTERY, DIARRHŒA, and HEPATITIS in each of the ADMINISTRATIVE CIRCLES in the BOMBAY COMMAND for the Year 1884.

Divisions.	Presidency.		Sind.		Poona.		Mhow.		Quetta.		On March.		Total.	
Strength.	2,668		998		2,399		3,007		1,075		577		10,724	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery - -	47	1	36	2	28	—	48	1	90	6	22	—	271	10
Diarrhœa - -	49	1	55	—	59	1	133	—	157	—	42	—	495	2
Hepatitis and Abscess of Liver.	53	2	10	1	44	1	27	4	15	2	3	—	152	10
Total -	149	4	101	3	131	2	208	5	262	8	67	—	918	22

Ratio per 1,000 of Strength.

Dysentery - -	17·6	·37	36·1	2·00	11·7	—	16·0	·33	83·7	5·58	38·1	—	25·3	·93
Diarrhœa - -	18·4	·37	55·1	—	24·6	·42	44·2	—	146·0	—	72·8	—	46·2	·19
Hepatitis and Abscess of Liver -	19·9	·75	10·0	1·00	18·3	·42	9·0	1·33	14·0	1·86	5·2	—	14·2	·93
Total -	55·8	1·50	101·2	3·01	54·6	·83	69·2	1·66	243·7	7·44	116·1	—	85·6	2·05

ABSTRACT No XXXVI.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the PREVALENCE and MORTALITY in the BOMBAY COMMAND, due to DYSENTERY, DIARRHŒA, and HEPATITIS, in each Quarter of the Year 1884.

Quarters.	Strength.	Dysentery.				Diarrhœa.				Hepatitis and Abscess of Liver.				Total.			
		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1st Quarter -	10,809	36	2	3·3	·19	78	1	7·2	·09	34	2	3·1	·19	148	5	13·7	·46
2nd " -	10,879	54	—	5·0	—	91	—	8·4	—	29	2	2·7	·18	174	2	16·0	·18
3rd " -	10,446	89	2	8·5	·19	192	1	18·4	·10	32	1	3·1	·10	313	4	30·0	·38
4th " -	10,761	92	6	8·5	·56	134	—	12·5	—	57	5	5·3	·46	283	11	26·3	1·02
Total for Year -	10,724	271	10	25·3	·93	495	2	46·2	·19	152	10	14·2	·93	918	22	85·6	2·05

ABSTRACT XXXVII.

ABSTRACT No. XXXVII.—TABLE taken from the REPORT of the PRINCIPAL
INVALIDING in the THREE GRADES of COMMISSIONED OFFICERS, NON-
Ten previous Years :

Years.	Average Strength.			Number of Deaths.		
	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
1874 - - -	385	1,139	9,439	1	16	97
1875 - - -	363	1,163	9,170	7	33	181
1876 - - -	368	1,173	9,111	5	18	110
1877 - - -	375	1,160	8,989	4	13	108
1878 - - -	364	1,316	8,588	3	34	166
1879 - - -	373	1,282	8,502	3	21	136
1880 - - -	366	1,279	7,921	4	42	168
1881 - - -	314	1,213	8,773	5	19	108
1882 - - -	306	1,186	9,011	6	17	89
1883 - - -	339	1,324	9,859	2	18	98
Average for 10 years -	355	1,224	8,936	4	23	126
1884 - - -	346	1,345	9,379	5	45	159

MEDICAL OFFICER at BOMBAY, showing the COMPARATIVE MORTALITY and COMMISSIONED OFFICERS, and PRIVATES for the Year under Report, and for the

Invalided.			Ratio per 1,000.					
			Deaths.			Invalids.		
Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
27	65	376	12·59	14·05	10·28	70·18	51·07	39·83
33	55	573	11·02	28·37	19·74	90·91	47·29	62·49
43	49	433	13·59	13·59	15·27	116·85	41·56	47·52
35	63	427	10·67	10·67	11·21	93·33	54·31	47·50
44	86	492	8·24	25·84	19·38	120·88	65·35	57·29
20	75	521	8·04	16·38	15·99	53·62	58·50	61·28
21	51	427	10·92	32·83	21·20	57·37	39·87	53·90
22	75	449	15·92	15·66	12·30	70·06	61·83	51·18
15	48	310	19·61	14·33	9·88	49·02	40·47	34·40
21	57	364	5·90	13·59	9·94	61·95	48·05	36·92
28	62	437	11·27	18·79	14·10	78·87	50·65	48·90
34	62	276	14·45	33·45	16·95	98·26	46·10	29·43

ABSTRACT No. XXXVIII.—TABLE showing the AVERAGE STRENGTH, ADMISS
TROOPS stationed in EGYPT during the Year 1884, with

Orders.	Average Strength, 6,468.	Admissions into Hospital.	Deaths.			Invalids.		Average number constantly Sick.
	Diseases.		In the Command.	Of invalids.	Total.	Number sent Home.	Number finally discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	25	1	—	1	—	—	2·
	Eruptive Fevers { Other	5	—	—	—	—	—	·
	Continued „ { Enteric	161	32	—	32	4	—	25·
	Continued „ { Other	853	—	—	—	2	—	30·
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	133	—	—	—	—	—	6·
	Cholera	—	—	—	—	—	—	—
	Other Diseases	12	—	—	—	—	—	·7
	Total of Febrile Group	1,189	33	—	33	6	—	65·
	Constitutional Group.							
	Rheumatism	208	—	—	—	11	2	14·1
	Primary Syphilis	1,484	—	—	—	—	—	110·9
	Secondary „	240	—	—	—	9	1	18·
	Tubercular Diseases	45	2	—	2	24	16	8·
	Scurvy and Purpura	2	—	—	—	—	—	·1
	Other diseases	12	—	—	—	3	2	·
	Total of Constitutional Group	1,991	2	—	2	47	21	152·
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	143	6	—	6	42	17	12·94
2	Eye	340	—	—	—	12	7	14·79
2	Ear	69	—	—	—	4	4	3·19
4	Nose	8	—	—	—	—	1	·37
5	Circulatory System	110	3	—	3	29	36	9·99
6	Absorbent	111	—	—	—	—	—	11·55
7	Ductless Glands	2	—	—	—	—	—	·09
8	Respiratory System	228	5	—	5	5	7	18·74
9	Digestive	1,338	5	1	6	31	5	54·19
10	Urinary System { Gonorrhœa	692	—	—	—	—	—	36·78
	Urinary System { Sequelæ of Gonorrhœa	77	—	—	—	—	—	4·53
	Urinary System { Other diseases	89	2	–	2	2	2	3·56
11	Generative System	76	—	—	—	2	—	5·32
12	Organs of Locomotion	47	—	—	—	7	4	3·59
13	Cellular Tissue	168	—	—	—	5	1	7·94
14	Cutaneous System	512	—	—	—	3	2	24·42
	III.—*Debility.*	334	—	—	—	45	10	24·36
	IV.—*Poisons.*	14	2	—	2	—	--	·35
	V.—*Injuries.*							
1	General	1	3	—	3	—	—	·02
2	Local	626	8	—	8	11	11	27·33
3	In action	1	5	—	5	69	37	19·58
	No appreciable disease	24	—	—	—	—	—	·47
	Cause unkwn. (refers to death only)	—	—	—	—	—	—	—
	General total	8,190	74	1	75	320	165	497·08

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* The average ratios for 10 years will be given in future years. The average ratios

Hospital, Deaths, Number Invalided and Constantly Sick among the
tios per 1,000 of the Strength and the average Ratios for 10 Years.*

Ratio per 1,000.					Ratio per 1,000 for 1883.				
Admissions.	Deaths.	Invalids Sent Home.	Invalids finally discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids Sent Home.	Invalids finally discharged.	Constantly Sick.
3·8	·15	—	—	·40	1·0	·38	—	—	·10
·8	—	—	—	·05	2·6	—	—	—	·05
4·9	4·95	·62	—	3·92	32·7	6·38	19·37	—	6·07
1·9	—	·31	—	4·65	151·6	·13	5·57	—	8·36
—	—	—	—	—	—	—	—	—	—
0·6	—	—	—	·96	17·1	—	·51	—	1·05
—	—	—	—	—	23·2	17·60	—	—	·48
1·8	—	—	—	·11	1·8	—	·13	—	·16
183·8	5·10	·93	—	10·09	230·0	24·44	25·58	–	16·27
2·2	—	1·70	·31	2·18	30·0	—	2·28	·38	2·22
9·4	—	—	—	17·15	190·1	—	1·14	—	14·99
7·1	—	1·39	·15	2·81	19·9	—	1·64	·13	1·91
7·0	·31	3·71	2·47	1·34	8·6	1·64	2·15	1·52	1·14
·3	—	—	—	·02	·2	—	—	—	·01
1·8	—	·46	·31	·13	·8	—	·25	—	·08
07·8	·31	7·26	3·24	23·68	249·6	1·64	7·47	2·03	20·35
22·1	·93	6·49	2·63	2·00	17·1	1·64	4·81	·88	1·51
52·6	—	1·86	1·08	2·28	35·2	—	1·01	1·27	1·85
10·7	—	·62	·62	·49	12·3	—	1·27	1·27	·66
1·2	—	—	·15	·06	·2	—	—	—	·02
17·0	·46	4·49	5·57	1·54	19·9	·25	6·96	4·05	2·17
17·2	—	—	—	1·79	19·5	—	2·15	·13	1·92
·3	—	—	—	—	—	—	—	—	—
35·3	·77	·77	1·08	2·12	52·9	1·27	1·27	1·01	3·63
206·9	·93	4·79	·77	8·37	203·7	3·04	10·89	1·01	9·96
107·0	—	—	—	5·69	67·9	—	—	—	4·43
11·9	—	—	—	·70	8·0	—	·13	—	·48
13·8	·31	·31	·31	·55	9·5	·25	·63	·13	·58
11·7	—	·31	—	·82	8·5	—	·51	·51	·60
7·3	—	1·08	·62	·56	6·8	—	1·89	·63	·45
26·0	—	·77	·15	1·28	23·5	—	·63	·13	1·07
79·1	—	·46	·31	3·78	54·2	—	·76	·38	2·89
51·6	—	6·96	1·55	3·77	49·8	·13	18·24	1·52	3·90
2·2	·31	—	—	·05	2·8	·13	—	—	·08
·1	·46	—	—	—	·1	·76	—	—	—
96·8	1·24	1·70	1·70	4·23	65·6	1·27	1·01	·88	3·21
·1	·77	10·67	5·72	3·03	—	—	—	6·46	—
3·7	—	—	—	·07	1·9	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
1,266·2	11·59	49·47	25·51	76·85	1,139·0	34·82	84·71	22·29	76·07

for the two years, 1883 to 1884, will be given in the Report for 1885.

ABSTRACT No. XXXIX.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS and returning from FOREIGN SERVICE, and proceeding from one COLONY or STATION

Orders.	Strength of W.O. N.C.O. and Men:	Passage Out.		Passage Home.		Intercolonial	
	Embarked - - -	25,451		10,392		11,285	
	Average Annual Strength -	1,495		739		474	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I.—General Diseases.						
	Febrile Group.						
	Eruptive Fevers: Small Pox -	1	—	—	—	—	—
	Eruptive Fevers: Other -	8	—	—	—	—	—
	Continued „ Enteric -	1	—	2	—	2	1
	Continued „ Other - -	24	—	16	—	12	—
	Yellow Fever - - -	—	—	—	—	—	—
	Paroxysmal Fevers - -	5	—	66	1	85	1
	Cholera - - - - -	—	—	6	5	—	—
	Other diseases - - -	3	—	1	—	—	—
	Total - -	42	—	91	6	99	2
	Constitutional Group.						
	Rheumatism - - -	39	1	21	—	7	—
	Primary Syphilis - - -	382	—	103	—	49	—
	Secondary „ - - -	36	—	15	—	2	—
	Tubercular diseases - -	6	—	4	—	—	—
	Scurvy and Purpura - -	—	—	1	—	—	—
	Other Diseases - - -	—	—	—	—	—	—
	Total - -	463	1	144	—	58	—
	II.—Local Diseases.						
	Diseases of the—						
1	Nervous System - - -	6	1	8	1	1	—
2	Eye - - - - -	22	—	11	—	4	—
3	Ear - - - - -	5	—	3	—	—	—
4	Nose - - - - -	—	—	—	—	—	—
5	Circulatory System - -	5	—	—	—	—	—
6	Absorbent „ - -	17	—	10	—	1	—
7	Ductless Glands - - -	—	—	—	—	—	—
8	Respiratory System - -	88	—	49	—	5	—
9	Digestive „ - -	130	—	79	2	35	2
10	Urinary System: Gonorrhœa - -	334	—	86	—	51	—
	Urinary System: Sequelæ of Gonorrhœa -	22	—	4	—	—	—
	Urinary System: Other diseases - -	28	—	4	—	2	—
11	Generative System - -	1	—	9	—	2	—
12	Organs of Locomotion - -	3	—	—	—	3	—
13	Cellular Tissue - - -	29	—	11	—	15	—
14	Cutaneous System - -	192	—	41	1	19	—
	III.—*Debility* - -	15	—	9	—	3	—
	IV.—*Poisons* - -	—	1	2	—	—	—
	V.—*Injuries.*						
1	General - - -	—	—	—	—	—	—
2	Local - - -	90	—	34	1	21	—
3	In action - - - -	—	—	—	—	—	—
	Not yet diagnosed - - -	2	—	—	—	—	—
	No appreciable disease - -	2	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—
	General Total - -	1,491	3	595	11	319	4
	Average of 10 years 1874–83 -	—	—	—	—	—	—

into HOSPITAL, and DEATHS among the TROOPS on BOARD SHIP, proceeding on abroad to another, with the ratio per 1,000 of the Strength, during the Year 1884.

Ratio per 1,000 of the Strength.					
Passage out.		Passage Home.		Intercolonial.	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
·7	—	—	—	—	—
5·3	—	—	—	—	—
·7	—	2·7	—	4·2	2·11
16·1	—	21·6	—	25·3	—
—	—	—	—	—	—
3·3	—	89·3	1·35	179·3	2·11
—	—	8·1	6·77	—	—
2·0	—	1·4	—	—	—
28·1	—	123·1	8·12	208·8	4·22
26·1	·67	28·4	—	14·7	—
255·5	—	139·4	—	103·4	—
24·1	—	20·3	—	4·2	—
4·0	—	5·4	—	—	—
—	—	1·4	—	—	—
—	—	—	—	—	—
309·7	·67	194·9	—	122·3	—
4·0	·67	10·8	1·35	2·1	—
14·7	—	14·9	—	8·4	—
3·3	—	4·1	—	—	—
—	—	—	—	—	—
3·3	—	—	—	—	—
11·4	—	13·5	—	2·1	—
—	—	—	—	—	—
58·9	—	66·3	—	10·6	—
87·0	—	106·9	2·71	73·9	4·22
223·4	—	116·3	—	107·6	—
14·7	—	5·4	—	—	—
15·4	—	5·4	—	4·2	—
·7	—	12·2	—	4·2	—
2·0	—	—	—	6·3	—
19·4	—	14·9	—	31·7	—
128·5	—	55·5	1·35	40·1	—
10·0	—	12·2	—	6·3	—
—	·67	2·7	—	—	—
—	—	—	—	—	—
60·2	—	46·0	1·35	44·3	—
—	—	—	—	—	—
1·3	—	—	—	—	—
1·3	—	—	—	—	—
—	—	—	—	—	—
997·3	2·01	805·1	14·88	672·9	8·44
685·5	4·31	679·2	12·44	805·7	4·84

ABSTRACT No. XL.—ON THE INFLUENCE OF AGE ON THE MORTALITY.—Table showing the Death Rates of the Warrant Officers, Non-commissioned Officers and Men at the several Ages, arranged by quinquennial Periods, in the several Foreign Commands.

Commands.	Under 20 Years.				20 and under 25.				25 and under 30.				30 and under 35.				35 and under 40.				40 and upwards.			
	Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.	
			1884.	1874-83.			1884.	1874-83.			1884.	1874-83.			1884.	1874-83.			1884.	1874-83.			1884.	1874-83.
Gibraltar	594	3	5·05	3·83	2,388	5	2·09	5·08	1,189	5	4·20	5·14	387	2	5·17	7·12	232	1	4·31	7·92	29	—	—	18·04
Malta	565	5	8·85	4·90	2,716	19	6·99	9·48	979	10	10·21	7·08	357	3	5·58	8·89	170	4	23·53	12·45	46	—	—	12·09
Cyprus	39	—	—	6·85*	249	3	12·05	6·55*	101	2	19·80	12·74*	49	2	40·82	6·29*	24	—	—	17·54*	4	—	—	—
Egypt	398	2	5·02	10·29†	2,749	48	17·46	27·01†	1,808	10	5·53	20·45†	633	10	15·80	19·28†	331	3	9·06	27·34†	92	1	10·87	71·43†
Canada	121	—	—	1·04	745	4	5·37	3·20	402	1	2·49	3·83	159	2	12·58	8·72	104	1	9·61	12·64	15	—	—	18·35
Bermuda	38	—	—	2·75	613	8	13·05	4·50	512	7	13·67	8·98	218	—	—	9·68	76	—	—	8·36	7	1	142·86	24·22
West Indies	58	3	51·72	12·02	497	1	2·01	21·99	200	1	5·00	14·83	78	—	—	20·41	39	3	76·92	8·17	9	2	222·22	28·41
Cape of Good Hope and St. Helena.	307	1	3·26	14·63‡	1,624	12	7·39	34·28‡	1,236	8	6·47	31·00‡	356	2	5·62	43·26‡	177	1	5·65	55·79‡	46	—	—	62·73‡
Mauritius	25	—	—	—	117	3	25·64	17·91	170	5	29·41	16·19	42	—	—	16·35	20	—	—	11·19	8	—	—	64·52
Ceylon	13	—	—	3·46	449	6	13·36	10·68	349	4	11·46	10·61	65	1	15·38	13·42	23	—	—	24·14	5	—	—	44·94
China and Straits Settlements.	26	—	—	5·93	848	5	5·89	5·37	648	6	9·26	8·87	199	1	5·02	10·63	82	1	12·19	17·00	52	—	—	28·75
India	1,944	8	4·11	7·70	21,309	324	15·20	15·10	18,157	210	11·56	14·75	7,727	85	11·00	19·35	3,178	40	12·58	21·25	1,505	21	13·95	43·42

* For five years only.

† For 1883 only.

‡ For six years only, viz., 1873-74-75-76-82 and 83, no information having been furnished for the intervening years.

ABSTRACT No. XLI.—TABLE taken from the REPORTS of the PRINCIPAL MEDICAL OFFICERS, showing the various CORPS which served in the different HOME DISTRICTS during the year 1884, and some of the most important of their HEALTH STATISTICS.

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN.											days.	days.
2nd	Life Guards	—	--	1	—	1	·17	—	—	--	—	—	—
3rd	Dragoon Guards	16	236	200	1	10	13·87	847·4	4·24	42·37	58·77	21·51	25·38
5th	Dragoon Guards	30	532	633	5	14	32·66	1189·8	9·39	26·31	61·39	22·47	18·88
3rd	Hussars	5	151	164	1	4	8·06	1086·1	6·62	26·49	53·37	19·54	17·99
4th	Hussars	--	37	41	—	—	1·89	1108·1	—	—	51·08	18·69	16·87
11th	Hussars	6	290	372	—	7	16·25	1282·8	—	24·14	56·03	20·51	15·99
N/A	Royal Horse Artillery	3	12	3	—	—	·17	250·0	—	—	14·16	5·18	20·74
H/2	Royal Artillery	10	93	132	1	1	5·75	1419·3	10·75	10·75	61·83	22·68	15·94
K/2	Royal Artillery	9	42	41	—	--	1·91	976·2	—	—	45·50	16·64	17·05
Q/2	Royal Artillery	9	206	169	—	1	10·47	820·4	—	4·85	50·82	18·60	22·67
A/3	Royal Artillery	4	121	111	1	—	3·91	917·3	8·26	—	32·31	11·83	12·89
B/3	Royal Artillery	4	139	117	—	6	5·47	841·7	—	43·17	39·35	14·40	17·11
G/3	Royal Artillery	6	134	118	—	—	7·80	880·6	—	—	58·21	21·30	24·19
P/4	Royal Artillery	6	58	50	—	—	2·30	862·1	—	—	39·35	14·51	16·83
Depôt	Royal Artillery, Northern Division	Since formation.	467	582	3	4	22·21	1246·2	6·42	8·56	47·56	17·41	13·97

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	In-valided.	Average Con-stantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duraiotn of each Case of Sick-ness.
								Ad-mitted.	Died.	In-valided.	Average Con-stantly Sick.		
	NORTHERN—*cont.*											days.	days.
Depôt	Royal Artillery, Lancashire Division	Since formation.	156	133	—	4	7·20	852·5	—	25·64	46·15	16·89	19·81
1st Div.	Royal Artillery, Coast Brigade	„	22	3	—	—	·04	136·4	—	—	1·82	·66	4·88
2nd Div.	Royal Artillery, Coast Brigade	„	34	5	1	—	·22	147·1	29·41	—	6·47	2·37	16·10
	Royal Engineers	Various	23	7	—	1	·71	304·4	—	43·50	30·87	11·29	37·12
	Coldstream Guards	—	—	1	—	1	·12	—	—	—	—	—	—
1st	Royal Lancaster Regiment	3	266	263	3	2	11·59	988·7	11·28	7·52	43·57	15·95	16·13
1st	East Yorkshire Regiment	11	527	634	3	6	28·38	1203·0	5·69	11·38	53·85	19·71	16·38
1st	Gloucestershire Regiment	5	103	130	—	—	4·91	1262·1	—	—	47·68	17·44	13·82
2nd	South Staffordshire Regiment	4	407	352	4	6	12·91	864·9	9·82	14·74	31·72	11·61	13·42
1st	South Lancashire Regiment	12	28	37	—	—	1·11	1321·4	—	—	39·64	14·51	10·98
2nd	Welsh Regiment	—	—	1	1	—	·18	—	—	—	—	—	65·88
1st	Northamptonshire Regiment	4	136	105	—	—	3·90	772·1	—	—	28·68	10·49	13·59
2nd	South Yorkshire Regiment	9	635	813	1	12	38·34	1280·3	1·57	18·90	60·37	22·09	17·26
1st	North Staffordshire Regiment	7	440	510	3	2	34·13	1159·1	6·82	4·56	77·60	28·39	24·49
Depôt	Royal Lancaster Regiment	Since formation.	116	96	2	4	3·95	827·6	17·24	34·48	34·05	12·46	15·06
„	Northumberland Fusiliers	„	154	79	1	4	4·54	513·0	6·50	26·00	29·48	10·78	21·03
„	Royal Warwickshire Regiment	„	108	63	2	2	1·35	583·3	18·52	18·52	12·50	4·58	7·84

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN—*cont.*											days.	days.
Depôt	Liverpool Regiment	Since formation.	121	73	1	3	3·27	603·3	8·26	24·80	27·02	9·89	16·39
„	West Yorkshire Regiment	„	154	120	1	2	6·40	779·2	6·50	13·00	41·56	15·21	19·52
„	East Yorkshire Regiment	„	226	179	2	4	8·16	792·0	8·85	17·70	36·11	13·31	16·68
„	Leicestershire Regiment	„	146	81	1	5	4·24	554·8	6·85	34·24	29·04	10·63	19·16
„	Yorkshire Regiment	„	155	81	2	—	4·30	522·6	12·90	—	27·74	10·15	19·43
„	Lancashire Fusiliers	„	112	108	—	2	6·69	964·3	—	17·86	59·73	21·86	22·67
„	Cheshire Regiment	„	196	140	1	—	6·56	714·3	5·10	—	33·47	12·25	17·15
„	Royal Welsh Fusiliers	„	151	128	1	4	6·40	847·7	6·62	26·50	42·38	15·51	18·30
„	King's Own Borderers	„	176	90	1	8	5·19	511·4	5·68	45·45	29·49	10·79	21·11
„	East Lancashire Regiment	„	114	95	2	1	3·54	833·3	17·54	8·76	31·05	11·37	13·63
„	West Riding Regiment	„	139	145	4	5	6·85	1043·1	28·77	36·00	49·28	18·04	17·29
„	Border Regiment	„	153	142	—	6	5·11	928·1	—	39·21	33·39	12·22	13·17
„	South Staffordshire Regiment	„	111	49	1	2	2·75	441·4	9·00	18·02	24·78	9·07	20·54
„	South Lancashire Regiment	„	219	150	4	1	6·01	684·9	18·22	4·56	27·44	10·04	14·66
„	Derbyshire Regiment	„	155	91	4	2	5·35	587·1	25·81	12·90	34·51	12·63	21·52
„	Loyal North Lancashire Regiment	„	104	93	—	2	4·69	894·2	—	19·23	45·09	16·50	18·46
„	Northamptonshire Regiment	„	175	327	1	10	8·47	1868·6	5·71	57·14	48·40	17·71	9·48

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN—*cont.*												
												days.	days.
Depôt	South Yorkshire Regiment	Since formation.	160	117	1	2	4·94	731·3	6·25	12·50	30·87	11·30	15·45
„	Shropshire Light Infantry	„	162	150	—	2	4·82	926·0	—	12·34	29·75	10·89	11·76
„	Manchester Regiment	„	100	179	—	5	8·06	1790·0	—	50·00	80·60	29·49	16·48
„	North Staffordshire Regiment	„	214	117	—	4	5·20	546·7	—	18·69	24·29	8·89	16·26
„	York and Lancaster Regiment	„	154	116	1	2	7·57	753·2	6·49	13·00	49·16	17·99	23·88
„	Durham Light Infantry	„	307	354	2	6	14·79	1156·1	6·51	19·54	48·18	17·63	15·29
	Garrison Staff and Departments	Various	237	44	2	3	3·33	185·6	8·44	12·65	14·05	5·14	27·70
	Other Corps	„	4	4	—	—	·17	1000·0	—	—	42·50	15·55	15·55
	EASTERN.												
3rd	Dragoon Guards	16	142	181	—	5	3·13	1274·7	—	35·21	22·04	9·35	7·34
4th	Hussars	6	400	523	—	9	25·57	1307·5	—	22·50	63·93	23·39	17·89
13th	Hussars	Various	24	44	—	—	2·03	1833·3	—	—	84·58	30·95	16·88
19th	Hussars	„	142	181	1	5	4·27	1274·7	7·04	35·21	30·07	11·01	8·63
Depôt	Royal Artillery, Eastern Division	„	150	84	—	1	4·23	560·0	—	6·67	28·20	10·32	18·43
2nd	Royal Artillery	„	414	569	1	9	35·10	1374·4	2·42	21·74	84·78	31·03	22·57
3rd	Royal Artillery	5	149	120	1	4	7·80	805·4	6·71	26·84	52·35	19·16	23·79

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	EASTERN—*cont.*											days.	days.
2nd	Royal Artillery	4	93	74	1	2	4·27	795·7	10·75	21·51	45·92	17·13	21·12
	Detachments Royal Artillery	Various	110	8	—	—	·36	72·7	—	—	3·27	1·19	16·47
1st	Royal Fusiliers	14	625	578	3	6	36·53	924·8	4·80	9·60	58·45	21·39	23·13
1st	Norfolk Regiment	15	336	325	—	7	20·29	970·3	—	20·84	60·38	22·11	22·85
1st	Bedfordshire Regiment	15	122	58	—	1	5·17	475·4	—	8·19	42·37	15·51	32·63
1st	Essex Regiment	—	35	44	1	—	1·60	1257·2	28·57	—	45·71	16·73	13·31
1st	Manchester Regiment	2	110	105	1	3	5·33	954·5	9·09	27·27	48·45	17·73	18·57
Depôt	Norfolk Regiment	Since formation.	141	157	1	—	5·06	1113·5	7·09	—	35·88	13·13	11·79
„	Lincolnshire Regiment	„	119	72	—	1	2·32	605·1	—	8·40	19·49	7·13	11·79
„	Suffolk Regiment	„	148	299	1	7	10·20	2020·3	6·78	47·29	68·92	25·23	12·48
„	Bedfordshire Regiment	„	113	129	—	—	4·11	1141·6	—	—	36·37	13·31	11·66
„	Essex Regiment	„	300	331	1	10	17·74	1103·4	3·33	33·34	59·13	21·64	19·62
	School of Gunnery	„	526	267	1	2	14·76	507·6	1·90	3·80	28·06	10·27	20·23
	Garrison Staff and Departments	Various	110	20	—	—	2·91	181·8	—	—	26·45	13·01	71·55
	Other Corps	„	60	103	2	—	6·65	1716·7	33·33	—	110·84	40·56	22·63

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	WESTERN.											days.	days.
A.	Royal Horse Artillery	7	53	25	—	5	1·77	471·7	—	94·34	33·40	12·22	25·91
B.	Royal Horse Artillery	12	169	102	1	2	4·26	603·5	5·92	11·83	25·21	9·23	15·28
2nd	Royal Artillery	4	118	140	—	3	10·04	1186·4	—	25·42	85·08	31·14	26·25
3rd	Royal Artillery	2	138	118	—	3	6·70	855·1	—	21·74	48·55	17·77	20·61
4th	Royal Artillery	6	119	121	—	3	6·11	1016·8	—	25·21	51·34	18·79	18·48
1st	Royal Artillery, Northern Division	5	7	9	—	—	·19	1285·7	—	—	27·14	9·97	7·73
1st	Royal Artillery, Cinque Ports Division	—	134	60	3	3	3·62	447·7	22·39	22·39	27·01	9·89	22·08
1st	Royal Artillery, Western Division	—	113	109	—	—	6·24	964·6	—	—	55·22	20·21	20·95
1st	Royal Artillery, Welsh Division	—	216	224	4	2	13·90	1037·0	18·52	9·26	64·34	23·55	22·71
1st	Royal Artillery, North Irish Division	—	53	18	—	—	1·70	339·6	—	—	32·08	11·74	34·57
1st	Royal Artillery, South Irish Division	5	180	137	—	4	10·89	761·1	—	23·89	60·50	22·14	29·09
	Royal Artillery, Coast Brigade	—	145	23	3	2	2·13	151·7	20·69	13·79	14·69	5·37	33·89
	Royal Artillery, other details	—	99	28	1	—	4·22	282·8	10·10	—	42·62	15·60	55·15
	Royal Engineers	—	117	24	3	2	·95	205·1	25·64	17·04	8·12	2·97	14·49
1st	Royal Warwick Regiment	4	96	107	1	—	5·42	1114·6	10·42	—	56·46	20·66	18·54
2nd	King's Royal Rifle Corps	3	145	156	1	2	7·88	1075·9	6·90	13·79	54·34	12·46	11·58

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	WESTERN—*cont.*											days.	days.
1st	York and Lancaster Regiment	1	4	4	—	1	·11	1000·0	—	250·00	27·50	10·06	10·06
2nd	Highland Light Infantry	2	757	703	4	11	49·24	928·7	5·27	14·53	65·05	23·81	25·64
2nd	South Lancashire Regiment	4	322	218	1	3	15·39	646·0	3·11	9·31	47·80	17·49	25·93
2nd	Gordon Highlanders	3	224	190	—	1	12·27	843·7	—	4·46	54·78	20·05	23·69
1st	Royal Munster Fusiliers	1	595	486	6	9	32·01	816·8	10·08	15·13	53·80	19·69	24·11
	Other Infantry details	Various	20	3	—	3	7·58	150·0	—	150·00	379·00	138·71	924·76
Depôt	Devonshire Regiment	Since formation.	178	71	—	1	3·26	398·9	—	5·62	18·31	6·70	16·81
„	Somersetshire Light Infantry	„	130	43	4	2	1·94	330·8	30·77	15·38	14·92	9·18	27·75
	South Wales Borderers	„	118	153	1	1	3·83	1296·6	8·47	8·47	32·46	11·87	9·16
	Gloucestershire Regiment	„	163	174	—	2	10·12	1067·5	—	12·27	62·08	22·72	21·29
	Worcestershire Regiment	„	140	149	4	11	7·81	1064·3	28·57	78·57	55·79	20·42	19·18
	Duke of Cornwall's Light Infantry	„	162	124	—	4	3·90	765·4	—	24·69	24·07	8·81	11·51
	Welsh Regiment	„	133	74	2	—	3·29	556·4	15·04	—	24·74	9·05	16·27
	Other details	Various	5	—	—	—	·83	—	—	—	166·00	60·76	—
	Commissariat and Transport Corps	„	80	46	1	1	2·65	575·0	12·50	12·50	33·13	12·12	21·08
	Garrison Staff and Departments	„	108	17	1	—	·42	157·4	9·26	—	3·89	1·42	9·04

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	SOUTHERN.											days.	days.
4th	Dragoon Guards	2	66	38	1	1	2·14	575·7	15·15	15·15	32·42	11·87	20·61
	Royal Artillery	—	1,631	1,332	8	36	72·20	816·6	4·90	22·07	44·26	16·20	19·84
	Royal Engineers	—	210	107	2	—	4·05	509·5	9·52	—	19·29	7·06	13·85
1st	Norfolk Regiment	13	279	326	2	3	16·40	1168·4	7·17	10·75	58·78	21·51	18·41
1st	Leicestershire Regiment	2	104	129	1	10	9·20	1240·3	9·62	96·15	88·46	32·38	26·10
1st	Cheshire Regiment	15	686	612	—	10	20·68	892·1	—	14·68	30·14	11·03	12·37
1st	Gloucestershire Regiment	5	296	328	2	5	20·62	1108·1	6·75	16·89	69·66	25·49	23·00
1st	Hampshire Regiment	—	576	462	1	9	26·67	802·1	1·73	15·62	46·30	16·94	21·12
2nd	King's Royal Rifle Corps	3	348	276	—	6	11·13	793·1	—	17·24	31·98	11·71	14·76
1st	Seaforth Highlanders	2	642	539	4	30	27·26	839·5	6·23	46·73	42·46	15·54	18·51
2nd	Loyal North Lancashire Regiment	1	499	620	1	10	35·15	1242·5	2·00	20·04	70·44	25·78	20·75
2nd	Royal Irish Fusiliers	1	376	336	1	6	16·40	893·6	2·66	15·95	43·62	15·96	17·88
2nd	Argyll and Sutherland Highlanders	4	161	289	—	3	16·34	1795·0	—	18·63	101·49	37·14	20·69
Depôt	Hampshire Regiment	Since formation.	171	160	3	7	6·64	935·6	17·54	40·94	38·83	14·21	15·19
„	Dorsetshire Regiment	„	202	172	—	4	6·68	851·4	—	19·80	33·07	12·11	14·21
„	Wiltshire Regiment	„	139	125	1	2	5·50	899·2	7·12	14·39	39·57	14·48	16·10

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	SOUTHERN—*cont.*											days.	days.
Depôt	Rifles	—	711	867	1	13	25·94	1219·4	1·41	18·28	36·48	13·35	10·95
	Garrison Staff and Departments	Various	374	224	3	17	17·49	598·9	8·02	45·45	46·76	17·11	28·58
	Other Corps	”	384	251	4	16	34·35	653·6	10·42	41·67	89·45	32·74	50·09
	CHATHAM.												
V/1	Royal Artillery	6	39	61	—	4	3·58	1564·1	—	102·56	91·79	33·60	21·46
D/3	Royal Artillery	6	108	85	1	6	8·52	787·0	9·26	55·56	78·89	28·87	36·69
4/1	Northern Division Royal Artillery	2	71	13	—	—	·69	183·1	—	—	9·72	3·56	19·43
2/1	Eastern Division Royal Artillery	2 1/12	55	52	1	—	2·42	945·4	18·18	—	44·00	16·10	17·03
8/1	Eastern Division Royal Artillery	1/12	45	7	—	—	·36	155·5	—	—	8·00	2·93	18·82
4/1	Scottish Division Royal Artillery	2 9/12	60	61	—	—	2·76	1016·6	—	—	46·00	16·84	16·56
8/1	Scottish Division Royal Artillery	1 1/12	60	69	1	—	3·50	1150·0	16·67	—	58·33	21·35	18·57
10 Div.	Coast Brigade Royal Artillery	Various	40	10	—	—	·54	250·0	—	—	13·50	4·94	19·76
	Royal Engineers	”	1,237	937	6	39	53·97	757·4	4·85	31·53	43·63	15·97	21·08
1st	Royal Warwickshire Regiment	4	339	429	1	17	25·10	1265·5	2·95	50·15	74·04	27·10	21·41
Det.	East Surrey Regiment	Various	17	20	—	—	1·05	1176·5	—	—	61·76	22·61	19·22
1st	Dorsetshire Regiment	2	143	174	—	3	8·57	1216·8	—	20·98	59·93	21·93	18·03

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CHATHAM—*continued.*											days.	days.
2nd	Berkshire Regiment	3	451	491	1	17	31·76	1088·7	2·22	37·69	70·42	25·77	23·67
	Garrison Staff and Departments	Various	161	95	1	5	6·12	590·1	6·21	31·06	38·01	13·91	23·58
	Other Corps	„	324	157	—	10	6·73	484·6	—	30·86	20·77	7·60	15·69
	SOUTH-EASTERN.												
4th	Dragoon Guards	2	392	303	3	11	14·34	772·9	7·65	28·06	36·58	13·39	17·32
7th	„ „	1	36	23	—	9	2·44	638·9	—	250·00	67·77	24·78	38·78
10th	Hussars	$\frac{8}{12}$	361	297	—	5	15·19	822·7	—	13·85	42·08	15·40	18·72
	Cavalry Depôt	13	972	1077	6	37	60·49	1108·0	6·17	38·06	62·23	22·78	20·55
A	Royal Horse Artillery	2	54	45	—	1	3·21	833·3	—	18·52	59·44	21·75	26·11
B	„ „ „	$\frac{8}{12}$	81	88	1	3	4·58	1086·4	12·34	37·03	56·54	20·69	19·05
1st	Royal Artillery	3	234	183	—	3	11·10	782·0	—	12·82	47·01	17·36	22·20
1st	Northern Division Royal Artillery	Various	118	119	—	11	6·91	1008·5	—	93·22	58·56	21·43	21·25
1st	Lancashire Division Royal Artillery	$\frac{2}{12}$	18	5	—	—	·12	277·8	—	—	6·67	2·44	8·78
1st	Eastern Division Royal Artillery	$\frac{1}{12}$	5	4	—	—	·04	800·0	—	—	8·00	2·93	3·66
1st	Cinque Ports Division Royal Artillery	Various	189	125	—	6	5·04	661·4	—	31·74	26·66	0·76	14·76
1st	Southern Division Royal Artillery	„	61	63	—	4	3·07	1032·8	—	65·57	50·33	18·42	18·09

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	SOUTH-EASTERN—*cont.*												
1st	Western Division Royal Artillery	Various	64	51	—	1	2·24	796·9	—	56·62	35·00	days. 12·81	days. 16·07
1st	Scottish Division Royal Artillery	"	79	59	—	8	4·11	746·8	—	101·27	52·03	19·03	25·48
	Coast Brigade Royal Artillery	—	58	15	—	1	1·36	258·6	—	17·24	23·45	8·55	33·05
	Royal Engineers	—	115	49	2	3	2·69	426·1	17·39	26·26	23·39	8·39	19·08
1st	Bedfordshire Regiment	—	343	242	—	13	17·79	705·5	—	37·90	51·86	18·98	26·91
2nd	East Lancashire Regiment	1	397	371	2	11	25·81	934·8	5·04	27·71	65·01	23·79	25·46
1st	Middlesex Regiment	$\frac{4}{12}$	207	172	—	1	8·45	830·9	—	4·83	40·82	14·99	18·04
1st	Manchester Regiment	$\frac{4}{12}$	173	166	—	1	8·84	959·5	—	5·78	51·10	18·70	19·40
1st	York and Lancaster Regiment	$\frac{8}{12}$	307	279	2	4	16·14	987·9	6·51	13·03	52·57	19·24	21·17
1st	Royal Irish Rifles	2	270	262	1	16	18·05	970·4	3·70	59·26	66·85	24·46	25·21
2nd	Royal Dublin Fusiliers	1	37	33	—	13	6·71	891·9	—	351·35	181·35	66·37	74·42
Depôt	East Kent Regiment	Since formation.	153	152	—	10	9·02	993·4	—	65·36	58·95	21·58	21·71
"	Royal Sussex Regiment	"	278	423	3	11	15·67	1521·5	10·91	39·05	56·34	20·63	13·56
"	Royal West Kent Regiment	"	174	136	1	8	6·40	781·6	5·74	45·98	36·78	13·46	17·22
	Commissariat and Transport Corps	Various	124	61	—	—	4·37	491·9	—	—	35·24	12·90	26·22
	Garrison Staff and Departments	"	70	17	—	1	1·47	242·8	—	14·28	21·00	7·69	31·65
	Other Corps	"	184	49	2	9	4·35	266·3	10·87	48·91	23·64	8·65	32·40

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	In-valided.	Average Con-stantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sick-ness.
								Ad-mitted.	Died.	In-valided.	Average Con-stantly Sick.		
	HOME.											days.	days.
1st	Life Guards	—	396	328	5	9	12·64	828·3	12·62	22·72	31·91	11·68	14·10
2nd	Life Guards	—	394	304	—	17	18·52	771·6	—	43·14	47·00	17·20	22·19
	Royal Horse Guards	—	398	189	—	2	11·48	474·9	—	5·02	28·84	10·55	22·23
3rd	Hussars	—	302	275	1	5	17·59	910·6	3·31	16·55	58·24	21·31	23·41
15th	Hussars	—	157	135	2	4	6·50	859·9	12·73	25·41	41·40	15·15	17·62
C/A	Royal Horse Artillery	—	103	72	—	3	3·36	699·0	—	29·12	32·62	11·93	17·08
C/B	Royal Horse Artillery	—	41	9	1	1	·41	219·5	24·39	24·39	10·00	3·66	16·67
	Royal Engineers	—	59	10	3	1	·63	169·5	50·85	16·94	10·67	3·90	23·05
1st	Grenadier Guards	—	429	448	4	20	25·80	1046·7	9·32	46·62	60·13	22·01	21·07
2nd	Grenadier Guards	—	653	580	1	11	33·74	888·2	1·53	16·84	51·66	18·91	21·29
3rd	Grenadier Guards	—	628	621	4	10	32·67	988·8	6·37	15·92	52·02	19·04	19·25
1st	Coldstream Guards	—	640	728	8	28	41·26	1137·5	12·50	43·90	64·46	23·56	20·74
2nd	Coldstream Guards	—	702	674	1	10	28·82	960·1	1·42	14·24	41·05	15·04	15·65
1st	Scots Guards	—	566	551	3	13	27·76	973·5	5·30	22·96	49·04	17·95	18·43
2nd	Scots Guards	—	324	434	1	3	17·58	1339·5	3·08	9·25	54·25	19·85	14·83
Depôt	Royal West Surrey Regiment	Since formation.	154	119	—	5	6·62	772·7	—	32·46	42·98	15·73	20·36

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	HOME—*cont.*											days.	days.
Depôt	Royal Fusiliers	Since formation.	235	183	4	4	12·19	778·7	17·03	17·03	51·87	18·93	24·33
„	Middlesex Regiment												
„	East Surrey Regiment	„	157	96	2	3	6·12	611·5	12·73	19·11	38·98	14·23	23·33
„	Oxfordshire Light Infantry	„	183	124	—	10	5·44	677·0	—	5·45	29·72	10·85	16·05
„	Berkshire Regiment	„	115	106	—	3	4·43	921·7	—	26·08	38·52	14·09	15·29
	Miscellaneous	Various	—	8	1	8	31·63	—	—	—	—	—	—
	Commissariat and Transport Corps	„	130	131	1	3	7·52	1007·7	7·69	23·07	57·84	21·17	21·01
	Other Corps	„	7	89	1	3	6·25	12714·3	142·85	428·57	892·85	326·78	25·70
	Garrison Staff and Departments	„	248	103	1	4	4·97	415·3	4·03	16·12	20·04	7·33	17·66
	WOOLWICH.												
	Cavalry	—	27	15	1	—	1·84	555·5	37·03	—	68·14	24·94	44·89
Depôt	Royal Horse Artillery	—	325	397	4	11	20·63	1221·5	12·30	33·84	63·47	23·23	19·01
1st	Royal Horse Artillery	—	396	157	2	6	27·31	396·5	5·05	15·15	68·96	11·44	28·87
	Riding Establishment	—	178	139	—	5	14·12	780·9	—	28·08	78·76	28·87	37·17
	Remount Establishment	—	76	30	—	2	2·63	394·8	—	27·63	34·57	12·53	31·75

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	WOOLWICH—*cont.*											days.	days.
1st	Royal Artillery	—	240	257	—	11	22·58	1070·8	—	45·83	94·08	34·85	32·15
2nd	Royal Artillery	—	319	270	2	9	24·22	851·7	6·26	28·21	75·92	27·78	32·83
3rd	Royal Artillery	—	136	126	1	3	9·70	926·5	7·35	22·05	71·32	26·10	27·18
4th	Royal Artillery	—	—	2	—	—	·17	—	—	—	—	—	26·11
Depôt	Royal Artillery, London Division	—	226	203	—	3	13·55	888·4	—	13·27	59·95	21·94	24·43
3/1	Royal Artillery, Lancashire Division	—	86	68	1	3	5·28	790·7	11·62	34·88	61·39	21·30	26·94
2/1	Royal Artillery, North Irish Division	—	111	68	—	3	6·72	612·6	—	27·02	60·54	21·97	36·69
	Royal Artillery, Regimental District Staff	—	831	290	7	22	25·90	349·0	8·42	26·48	31·16	11·40	31·58
	Royal Engineers	—	54	27	—	—	1·73	500·0	—	—	32·03	11·72	23·45
1st	Royal Fusiliers	—	6	—	—	—	—	—	—	—	—	—	—
1st	Norfolk Regiment	—	17	14	—	—	·64	823·5	—	—	37·64	14·36	17·44
1st	Essex Regiment	—	2	2	—	—	·09	1000·0	—	—	45·00	6:47	6·47
2nd	Shropshire Light Infantry	—	312	270	—	5	20·87	865·4	—	16·02	66·85	24·48	28·29
1st	Wiltshire Regiment	—	163	124	1	7	13·07	760·7	6·13	42·33	80·18	29·34	38·57
1st	Manchester Regiment	—	20	12	—	—	·53	600·0	—	—	26·50	9·69	16·16
	Commissariat and Transport Corps	Various	453	427	4	7	36·62	942·6	8·83	15·45	80·83	29·58	31·38

Brigade or Battalion.	Corps and District.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	WOOLWICH—*cont.*											days.	days.
	Ordnance Store Corps	Various	214	125	2	4	10·12	588·8	9·34	18·09	47·28	12·63	29·79
	Medical Staff Corps	„	85	71	—	1	4·16	835·3	—	11·76	48·94	17·79	21·30
	Other Corps	„	96	6	—	6	2·08	62·5	—	62·50	26·66	7·93	126·88
	ALDERSHOT.												
Detnt.	Household Cavalry	—	30	3	—	—	·05	100·0	—	—	1·67	—	—
2nd	Dragoon Guards	14	458	329	1	3	19·93	718·3	2·18	6·55	43·51	15·93	22·17
7th	Hussars	3	440	345	2	4	23·12	784·1	4·55	9·09	52·54	19·23	24·52
15th	Hussars	4	300	236	1	4	14·64	786·6	3·33	13·33	48·80	17·86	22·70
20th	Hussars	12	158	128	1	—	6·88	810·1	6·33	—	43·54	15·94	19·67
	Royal Horse Artillery	Various	362	263	—	7	18·86	726·5	—	19·34	52·10	19·07	26·24
	Royal Artillery	„	774	901	5	23	53·38	1164·1	6·46	29·72	75·43	27·61	23·71
	Royal Engineers	„	510	430	1	6	22·86	843·1	1·96	11·76	44·82	16·40	19·27
Detnt.	Foot Guards	—	650	451	2	—	28·27	693·5	3·08	—	43·49	15·93	22·94
1st	Royal Lancaster Regiment	—	93	85	1	—	3·53	914·0	10·75	—	37·95	13·89	15·20
1st	Leicestershire Regiment	2	409	395	1	5	21·95	965·8	2·45	12·23	53·67	19·64	20·34
2nd	Royal Irish Regiment	2	135	108	—	2	7·61	800·0	—	14·81	56·37	20·63	25·79

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	In-valided.	Average Con-stantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sick-ness.
								Ad-mitted.	Died.	In-valided.	Average Con-stantly Sick.		
	ALDERSHOT—*cont.*											days.	days.
1st	Royal Scots Fusiliers	6	496	526	2	7	26·75	1060·5	4·03	14·11	53·93	19·74	18·61
1st	Scottish Rifles	—	317	326	—	6	20·72	1028·4	—	18·92	65·36	23·92	23·26
1st	East Surrey Regiment	2	150	113	—	2	8·47	753·3	—	13·33	56·46	20·66	27·43
1st	Dorsetshire Regiment	3	541	583	2	10	32·05	1077·6	3·70	18·48	59·24	21·68	20·12
2nd	Royal Highlanders	4	425	362	1	10	24·02	851·7	2·25	23·53	56·52	20·68	24·28
2nd	Shropshire Regiment	—	153	134	1	2	8·28	875·8	6·54	13·07	54·12	19·81	22·61
	Wiltshire Regiment	—	307	269	1	3	16·55	876·2	3·26	9·77	53·91	19·73	22·52
2nd	Rifle Brigade	4	98	122	—	—	4·70	1244·9	—	—	47·96	17·55	14·10
3rd	Rifle Brigade	12	710	751	3	15	40·88	1057·7	4·22	21·13	57·57	21·07	19·92
Detnt. Depôt.	Royal Irish Fusiliers	6	124	132	2	6	10·86	1064·5	16·13	48·38	87·58	32·05	30·11
	Commissariat and Transport Corps	Various	701	570	6	2	35·57	813·1	8·56	2·85	50·74	18·57	22·84
	Medical Staff Corps	„	535	573	2	11	32·36	1071·0	3·74	20·56	60·49	22·14	20·67
	Garrison Staff and Departments	„	121	30	—	--	1·75	247·9	—	—	14·46	5·29	21·35
Detnt.	Sandhurst	„	129	—	—	—	—	—	—	—	—	—	—
	Camel Corps	—	14	—	—	—	—	—	—	—	—	—	—
	Other Corps	Various	61	314	2	12	23·68	5147·5	32·78	196·72	388·20	142·06	27·60

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTH BRITISH.											days.	days.
2nd	Dragoons	—	457	433	3	9	19·89	947·5	6·56	19·69	43·52	15·93	16·81
Depôt	Scottish Division Royal Artillery	—	121	93	—	1	3·82	768·6	—	8·26	31·57	11·55	15·03
I/4	Royal Artillery	—	138	152	—	3	7·19	1101·4	—	21·74	52·10	19·07	17·31
5th Div.	Coast Brigade Royal Artillery	—	42	10	—	3	·87	238·1	—	71·43	20·71	7·58	31·84
2nd	Royal Scots	—	282	304	2	5	14·57	1078·0	7·09	17·73	51·67	18·91	17·54
1st	Scottish Rifles	—	170	237	1	—	10·67	1394·1	5·88	—	62·76	22·97	16·48
2nd	Gordon Highlanders	—	236	224	3	7	10·32	949·1	12·71	29·66	43·73	16·00	16·86
2nd	Argyll and Sutherland Highlanders	—	343	275	—	11	17·31	801·7	—	32·07	50·64	18·53	23·12
Depôt	Royal Scots	Since formation.	186	111	—	1	4·27	596·8	—	5·38	22·96	8·42	14·08
"	Royal Scots Fusiliers	"	132	122	1	6	3·91	924·2	7·57	45·45	29·62	10·84	11·73
"	Scottish Rifles	"	244	144	—	11	4·60	590·2	—	45·08	18·85	6·90	11·69
"	Highland Light Infantry												
"	Royal Highlanders	"	157	97	2	7	3·71	617·8	12·74	44·59	23·63	8·65	14·00
"	Seaforth Highlanders	"	300	126	—	3	4·94	420·0	—	10·00	16·47	6·03	14·35
"	Cameron Highlanders												
"	Gordon Highlanders	"	151	107	2	4	3·80	708·6	13·25	26·49	25·17	9·21	13·00

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTH BRITISH—*cont.*											days.	days.
Depôt	Argyll and Sutherland Highlanders	Since formation.	132	70	3	1	2·75	530·3	22·73	7·58	20·83	7·62	14·38
	Garrison Staff and Departments	Various	74	5	—	1	1·72	67·6	—	13·51	23·42	8·51	125·90
	CHANNEL ISLANDS.												
2/1	Lancashire Division Royal Artillery	10	81	97	—	4	5·37	1197·5	—	49·38	66·30	24·26	20·26
1/1	Cinque Ports Division Royal Artillery	8	96	41	—	2	2·17	427·1	—	20·83	22·60	8·27	19·37
2/1	Cinque Ports Division Royal Artillery	8	97	79	—	—	2·28	814·4	—	—	23·50	8·60	10·56
	Coast Brigade Royal Artillery	Various	52	4	1	—	·05	76·9	19·23	—	·96	·35	4·57
2	Worcestershire Regiment	9	563	744	—	2	41·64	1321·5	—	3·55	73·96	27·07	20·48
1	Middlesex Regiment	5	336	232	—	6	11·07	690·5	—	17·86	32·95	12·06	17·46
1	Royal Irish Rifles	3	143	154	—	—	7·02	1076·9	—	—	49·09	17·97	16·68
	Garrison Staff and Departments	Various	28	3	—	—	·32	107·1	—	—	11·43	4·18	39·04
	Other Corps	”	—	3	1	1	·05	—	—	—	—	—	—
	BELFAST.												
16th	Lancers	7	384	280	—	9	8·77	729·2	—	23·44	22·84	8·36	11·46
Depôt	North Irish Division Royal Artillery	3	213	103	—	1	6·87	483·5	—	4·69	32·25	11·34	24·41

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	BELFAST—*cont.*											days.	days.
8th Dvn.	Coast Brigade Royal Artillery	Permanent	39	1	1	—	·13	25·6	25·64	—	3·33	1·22	47·58
1st	Devonshire Regiment	7	218	154	1	3	6·82	706·4	4·59	13·76	31·29	11·45	16·21
1st	Somersetshire Light Infantry	5	466	251	3	14	12·05	538·6	6·44	20·04	25·86	9·46	17·57
2nd	Border Regiment	7	186	127	2	1	8·32	682·8	10·76	5·38	44·73	16·37	23·98
2nd	Welsh Regiment	6	198	121	2	1	14·03	611·1	10·10	5·05	70·86	25·93	42·44
2nd	Royal Inniskilling Fusiliers	8	484	564	2	10	22·88	1165·1	4·13	20·66	47·27	17·30	14·85
	Other Corps	Various	4	1	—	—	·05	250·0	—	—	12·50	4·58	18·30
Depôt	Royal Inniskilling Fusiliers	Since formation.	149	100	2	4	3·95	671·1	13·42	26·85	26·51	9·70	14·46
„	Royal Irish Rifles	„	183	132	—	2	8·35	721·3	—	10·93	45·63	16·70	23·15
„	Royal Irish Fusiliers	„	190	37	2	1	1·10	194·7	10·53	5·26	5·79	2·17	10·88
	Garrison Staff and Departments	Various	69	11	—	4	3·08	159·4	—	57·97	44·64	16·34	102·48
	DUBLIN.												
1st	Royal Dragoons	31	62	38	—	—	1·21	612·9	—	—	19·56	7·14	11·65
5th	Lancers	9	446	546	2	15	37·01	1224·1	4·48	33·64	82·98	23·60	19·27
16th	Lancers	7	3	4	—	—	·35	1335·3	—	—	116·66	19·36	14·52
18th	Hussars	9	458	505	1	5	39·82	1102·6	2·18	10·91	86·94	31·82	28·86

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	DUBLIN—*cont.*											days.	days.
	Royal Horse Artillery	—	230	296	—	16	18·45	1286·9	—	69·56	80·22	29·36	22·81
	Royal Artillery	—	349	271	3	14	17·56	776·5	8·59	37·25	50·31	18·40	23·69
	Royal Engineers	—	38	19	1	—	1·20	500·0	26·31	—	32·10	11·56	23·11
1st	Grenadier Guards	—	205	283	—	—	13·97	1380·5	—	—	68·14	24·94	18·06
2nd	Scots Guards	—	338	473	4	15	33·38	1399·4	11·83	44·37	98·76	36·14	25·82
1st	East Kent Regiment	6	546	705	4	20	52·52	1291·0	7·51	36·66	96·19	35·20	27·12
1st	Northumberland Fusiliers	4	469	423	3	15	23·63	906·0	6·41	32·05	56·90	20·82	23·04
1st	Liverpool Regiment	11	26	43	—	—	1·42	1720·0	—	—	56·80	20·79	12·09
1st	Devonshire Regiment	7	232	316	—	9	20·43	1362·1	—	38·79	88·06	32·34	24·37
2nd	Suffolk Regiment	4	332	202	4	—	9·17	608·4	12·04	—	27·62	10·11	16·61
1st	West Yorkshire Regiment	4	386	308	4	—	10·44	800·0	10·39	—	27·12	9·92	12·40
2nd	Yorkshire Regiment	7	11	16	—	—	1·12	1454·5	—	—	101·82	37·27	25·62
2nd	King's Own Borderers	9	180	301	1	—	17·79	1672·2	5·55	—	98·83	35·99	21·52
1st	Duke of Cornwall's Light Infantry	8	114	131	—	—	6·16	1149·1	—	—	54·04	19·77	17·25
2nd	Border Regiment	7	144	220	1	1	14·45	1527·8	6·94	6·94	103·47	36·72	24·04
2nd	Welsh Regiment	6	280	241	1	—	10·46	860·7	3·57	—	37·35	13·67	15·88

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	DUBLIN—*cont.*											days.	days.
1st	Derbyshire Regiment	7	527	295	8	—	13·51	559·8	15·18	—	25·63	9·39	16·76
1st	Northampton Regiment	—	31	42	—	—	2·50	1354·8	—	—	80·64	29·01	21·78
2nd	Royal West Kent Regiment	2	208	259	3	7	13·36	1245·2	14·42	33·65	64·23	23·50	18·87
1st	King's Royal Rifle Corps	8	295	338	1	7	25·08	1145·7	3·39	23·73	85·02	31·11	27·15
1st	Highland Light Infantry	4	514	628	6	12	34·68	1229·6	11·67	23·34	67·47	24·69	20·21
2nd	Leinster Regiment	7	383	211	—	—	6·46	550·9	—	—	16·86	6·17	11·20
2nd	Rifle Brigade	—	14	16	—	—	·73	1142·8	—	—	52·14	19·08	18·19
Depôt	Connaught Rangers	Since formation.	209	103	1	—	3·47	492·8	4·78	—	16·60	60·76	12·33
„	Leinster Regiment	„	130	83	2	—	1·64	638·4	15·38	—	12·61	4·61	7·23
„	Royal Dublin Fusiliers	„	284	332	3	—	12·73	1169·0	10·56	—	44·47	16·40	14·03
	Commissariat and Transport Corps	Various	247	343	1	7	20·36	1388·6	4·05	28·34	82·43	30·17	21·72
	Medical Staff Corps	„	71	59	—	5	4·04	845·0	—	70·42	56·90	20·82	25·07
	Staff and Departments	„	58	8	2	—	·67	137·9	34·48	—	11·38	4·23	31·90
	Detachments at Musketry	„	166	50	—	1	1·98	301·2	—	6·02	11·92	4·36	14·46
	Men of Other Corps	„	62	52	2	52	17·88	800·0	32·26	838·71	275·07	100·67	125·84

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CORK.											days.	days.
	11th Hussars - - - - - -	6	138	155	1	—	7·23	1123·2	7·35	--	52·39	19·17	17·07
	20th Hussars - - - - - -	12	394	247	1	9	12·08	626·9	2·54	22·84	30·66	11·22	17·90
	21st Hussars - - - - - -	11	434	303	—	7	14·20	698·1	—	16·13	32·72	11·97	17·15
J/1 & N/1	Royal Artillery - - - - -	1	106	45	—	2	2·17	424·5	—	18·87	20·47	7·49	17·65
L/2	Royal Artillery - - - - -	10	133	58	—	4	4·02	436·1	—	30·07	30·22	11·06	25·37
K/4, M/4 & Dep. 4	Royal Artillery - - - - -	Various	402	407	3	7	15·87	1012·2	7·46	17·41	39·47	14·41	14·27
	Western Division Royal Artillery - -	—	212	104	1	5	6·02	490·6	4·72	23·58	28·40	10·39	21·18
Depôt	South Irish Division Royal Artillery -	8	129	60	—	1	2·65	465·1	—	7·75	20·54	7·52	16·16
	Royal Engineers - - - -	Various	64	19	—	—	·72	296·9	—	—	11·25	4·12	13·87
1st	Royal West Surrey Regiment - -	6	497	446	—	7	17·15	897·4	—	14·08	34·51	12·63	14·05
1st	East Kent Regiment - - - -	4	65	128	1	—	5·24	1969·2	15·39	—	80·61	29·50	14·98
1st	Liverpool Regiment - - - -	5	367	324	3	11	15·29	882·8	8·17	29·97	41·66	15·25	17·27
1st	Lincolnshire Regiment - - -	7	445	137	1	2	8·03	307·8	2·25	4·49	18·04	6·60	21·45
2nd	Suffolk Regiment - - - -	7	137	150	—	1	5·40	1094·9	—	7·30	39·42	14·43	13·18
1st	Lancashire Fusiliers - - - -	4	436	334	2	7	15·40	766·0	4·59	6·05	35·32	12·92	16·87
2nd	Royal Welsh Fusiliers - - -	5	443	283	1	3	12·49	638·8	2·26	6·77	28·19	10·32	16·15

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CORK—*continued.*											days.	days.
1st	South Wales Borderers - - -	5	461	269	2	3	12·60	583·5	4·34	6·51	27·33	10·00	17·14
2nd	King's Own Borderers - - -	9	278	197	2	3	9·83	708·6	7·20	10·79	35·36	12·94	18·26
1st	Duke of Cornwall's Light Infantry -	8	539	420	3	12	19·52	779·2	5·56	22·26	36·21	13·25	17·01
2nd	West Riding Regiment - - -	8	380	247	2	2	10·87	650·0	5·26	5·26	28·60	10·47	16·11
2nd	Oxfordshire Light Infantry - - -	10	656	437	6	10	27·45	666·1	9·15	15·24	41·84	15·31	22·99
1st	King's Royal Rifle Corps - - -	7	226	200	—	2	12·16	884·9	—	8·85	53·80	19·69	22·25
2nd	Connaught Rangers - - - -	2	498	478	3	11	21·86	959·8	6·03	22·09	43·89	16·06	16·74
Depôt	Royal Irish Regiment - - -	Since formation.	259	257	1	3	9·78	992·3	3·86	11·58	37·76	13·82	13·93
„	Royal Munster Fusiliers - - -	„	93	78	1	2	3·38	838·7	10·75	21·50	36·34	13·30	15·86
	Garrison Staff and Departments -	Various	378	109	—	13	15·00	288·3	—	110·27	39·68	14·52	50·37
	CURRAGH.												
1st	Royal Dragoons - - - -	28	484	326	1	8	16·93	673·5	2·07	16·53	34·98	12·80	19·01
A/A	Royal Horse Artillery - - -	9	135	84	—	5	5·53	240·0	—	37·03	40·96	14·99	24·09
K/4	Royal Artillery - - - -	10	138	116	—	3	7·75	840·6	—	21·74	56·16	20·55	24·45
R/4	Royal Artillery - - - -	2	117	104	—	4	6·58	888·9	—	34·19	56·24	20·58	23·15
29 Co.	Royal Engineers - - - -	4	58	12	—	—	·34	206·9	—	—	5·86	2·15	10·37

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted	Died.	Invalided.	Average Constantly Sick.		
	CURRAGH—*continued.*											days.	days.
2nd	Royal Scots	4	255	234	—	—	13·82	917·6	—	—	54·19	19·84	21·61
1st	Liverpool Regiment	6	118	138	—	1	4·27	1169·5	—	8·47	36·19	13·24	11·32
1st	Lincoln Regiment	7	80	80	—	—	2·71	1000·0	—	—	33·87	12·40	12·40
2nd	Yorkshire Regiment	8	431	337	1	7	21·90	781·9	2·32	16·24	50·81	18·60	23·78
1st	Northamptonshire Regiment	9	336	201	—	4	9·63	598·3	—	11·90	28·66	10·49	17·53
2nd	Royal West Kent Regiment	8	312	243	1	2	10·27	778·8	3·20	6·41	32·91	12·05	15·47
2nd	Rifle Brigade	4	420	363	3	1	20·20	864·3	7·14	2·38	48·09	17·60	20·37
	Other Corps	Various	17	16	—	—	·62	941·2	—	—	36·47	13·35	14·18
	Detachments at Musketry	"	198	148	—	2	10·10	747·5	—	10·10	51·01	18·67	24·98
	Commissariat and Transport Corps	"	216	130	—	3	7·74	601·8	—	13·88	35·83	13·11	21·79
	Garrison Staff and Departments	"	76	124	1	2	22·52	1631·6	13·16	26·31	296·31	108·45	66·47

ABSTRACT No. XLII.—Table, taken from the Reports of the Principal Medical Officers, showing the various Corps which served in the different Foreign Commands during the year 1884, and some of the most important of their Health Statistics.

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	GIBRALTAR.													days.	days.
	Royal Artillery	Various	893	605	5	1	6	18	37·41	677·5	6·72	20·16	41·89	15·33	22·63
	Royal Engineers	„	352	314	—	—	—	12	15·57	892·0	—	34·09	44·22	16·18	18·14
1st	Royal Fusiliers	—	20	29	—	—	—	—	·59	1450·0	—	—	29·50	10·70	7·38
1st	East Surrey Regiment	—	708	941	4	—	4	19	50·93	1329·1	5·65	26·84	71·93	26·33	19·81
2nd	Oxfordshire Light Infantry	—	357	452	1	—	1	1	20·36	1029·1	2·80	2·80	57·02	20·80	16·48
2nd	Essex Regiment	2	144	88	—	—	—	10	8·63	611·1	—	69·44	59·96	21·94	35·91
1st	Loyal North Lancashire Regiment	—	43	30	—	—	—	8	2·95	697·7	—	186·05	68·50	25·07	35·98
1st	Royal Berkshire Regiment	1	550	493	2	—	2	29	31·43	896·4	3·64	52·73	57·15	20·92	23·34
2nd	Durham Light Infantry	2	820	620	1	—	1	31	43·86	756·1	1·22	37·80	53·49	19·58	25·89
2nd	Royal Dublin Fusiliers	—	704	882	2	1	3	16	44·95	1252·8	4·26	22·73	63·86	23·37	18·65
	Garrison Staff and Departments	Various	121	102	1	1	2	12	5·57	843·0	16·53	99·18	46·06	16·86	20·00
	MALTA.														
	Royal Artillery, London Division	4	402	235	1	—	1	9	16·18	584·5	2·48	22·38	40·24	14·73	25·19
	Royal Artillery, Southern Division	1$\frac{4}{13}$	10	11	—	—	—	2	·85	1100·0	—	200·00	85·00	31·11	28·28

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Commands.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Malta—*cont.*													days.	days.
	Royal Artillery, Scottish Division	$2\frac{4}{12}$	173	51	—	—	—	3	4·24	294·7	—	17·34	24·50	8·97	30·42
	Royal Artillery, South Irish Division.	$2\frac{2}{12}$	346	259	3	—	3	18	19·21	748·5	8·67	52·02	55·52	20·32	27·14
	Royal Engineers	$4\frac{2}{12}$	120	101	4	—	4	6	6·35	841·6	33·33	50·00	52·91	19·36	23·01
2nd	Royal Irish Regiment	$\frac{10}{12}$	743	718	12	1	13	13	52·02	966·3	17·49	17·49	70·01	25·62	26·51
1st	Yorkshire Regiment	$\frac{4}{12}$	271	470	1	—	1	21	23·31	1734·3	3·69	77·49	86·01	31·48	18·15
2nd	Royal Sussex Regiment	$2\frac{4}{12}$	908	566	4	—	4	23	38·23	623·3	4·40	25·33	42·10	15·40	24·72
1st	Hampshire Regiment	$\frac{5}{12}$	412	660	6	—	6	3	29·64	1601·9	14·56	7·28	71·94	26·33	16·43
1st	South Staffordshire Regiment	$\frac{11}{12}$	129	144	—	—	—	13	15·00	1116·2	—	100·77	116·28	42·55	38·12
1st	Shropshire Light Infantry	$1\frac{10}{12}$	845	500	8	—	8	15	38·80	591·7	9·46	17·75	45·82	16·80	28·40
2nd	Royal Munster Fusiliers	$1\frac{3}{12}$	151	115	2	—	2	8	9·39	761·5	13·24	52·98	62·11	22·76	29·88
	Other Corps	Various	2	7	—	—	—	1	·38	—	—	—	—	—	—
	Commissariat and Transport Corps	"	9	1	—	—	—	—	·03	111·1	—	—	3·33	1·22	10·98
	Medical Staff Corps	"	86	54	—	1	1	7	4·79	627·9	11·63	81·39	55·69	20·38	32·46
	Ordnance Store Corps	"	10	4	—	—	—	—	·49	400·0	—	—	49·00	17·93	44·83
	Garrison Staff and Departments	"	20	1	—	—	—	—	·02	50·0	—	—	—	·36	7·32

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Cyprus.													days.	days.
1st	Royal West Kent Regiment - -	2	282	212	1	1	2	4	9·88	751·7	7·09	14·18	35·07	12·82	17·06
3rd	King's Royal Rifle Corps - -	6	126	139	3	—	3	—	4·99	1103·1	23·80	—	39·60	14·49	13·14
	Garrison Staff and Departments -	Various	64	22	2	—	2	2	·86	343·7	31·25	31·25	13·44	4·92	14·31
	Other Corps - - - -	"	23	—	1	—	1	11	—	—	43·48	—	—	—	—
	Canada.														
	Royal Artillery - - -	Various	298	244	4	—	4	3	12·24	881·8	13·42	10·06	41·07	15·03	18·36
	Royal Engineers - - -	"	112	54	1	—	1	1	4·10	482·1	8·93	8·93	36·61	13·40	27·81
1st	Yorkshire Regiment - - -	4	107	85	1	—	1	—	5·24	794·4	9·35	—	48·97	17·92	22·56
2nd	Royal Irish Rifles - - -	1$\frac{2}{11}$	709	594	2	—	2	20	42·43	837·8	2·82	28·21	59·84	21·90	26·14
1st	Royal Munster Fusiliers - -	5	1	—	—	—	—	—	—	—	—	—	—	—	—
	Garrison Staff and Departments -	Various	38	8	—	—	—	2	·27	210·5	—	52·63	7·11	2·61	12·35
	Bermuda.														
	Royal Artillery - - -	4	227	90	1	—	1	—	7·04	396·5	4·40	—	31·01	11·35	28·63
	Royal Engineers - - -	2	323	216	4	—	4	—	12·39	668·7	12·38	—	38·36	14·04	20·99

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Bermuda—*cont.*													days.	days.
2nd	York and Lancaster Regiment	1	918	621	7	—	7	—	29·28	676·5	7·63	—	31·89	11·67	17·26
	Garrison Staff and Departments	2	83	31	4	—	4	—	1·54	373·5	48·19	—	18·55	6·79	18·18
	Other Corps	—	—	—	—	1	1	—	—	—	—	—	—	—	—
	West Indies.														
5/1	Royal Artillery (Cinque Ports Division).	4	83	49	—	—	—	4	3·36	590·4	—	48·19	40·05	14·80	25·02
6/1	Do. do.	2	105	83	2	—	2	3	6·28	790·5	19·05	28·57	59·81	21·89	27·69
6/1	Royal Artillery, Welsh Division	$\frac{2}{12}$	22	26	1	—	1	—	1·22	1180·1	45·45	—	55·45	20·29	17·17
	Royal Engineers	Various	14	3	1	—	1	—	·03	214·3	71·43	—	2·14	·78	3·66
1st	Royal Scots	$1\frac{3}{12}$	566	388	3	1	4	19	20·58	687·3	7·07	35·33	36·36	13·31	19·41
1st	North Staffordshire Regiment	$\frac{3}{12}$	126	155	3	—	3	—	6·14	1230·1	23·81	—	48·73	17·83	14·46
	Detachment of Infantry	—	21	18	—	—	—	1	·74	856·9	—	47·62	35·24	12·89	15·04
	Garrison Staff and Departments	Various	33	5	—	—	—	—	·30	151·5	—	—	9·09	3·33	21·96
	Cape of Good Hope and St. Helena.														
6th	Dragoons	4	452	174	3	—	3	10	15·56	385·0	6·64	22·12	34·42	12·60	32·73
13th	Hussars	—	36	68	1	—	1	—	2·29	1888·9	27·78	—	63·61	24·50	12·97

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Cape of Good Hope and St. Helena—*cont.*													days.	days.
C/1	Royal Artillery	4	149	107	—	—	—	8	7·66	724·4	—	53·69	51·41	18·82	26·20
1/1	Royal Artillery	—	4	4	—	—	—	—	·01	1000·0	—	—	2·50	·91	·91
7/1	Royal Artillery	5	101	52	1	—	1	2	3·50	514·8	9·90	19·80	34·65	12·68	24·63
8/1	Royal Artillery	5	108	81	1	—	1	1	4·83	750·0	9·26	9·26	44·72	16·37	21·88
	Royal Engineers	Various	95	38	—	—	—	4	2·91	400·0	—	42·10	30·63	11·21	28·03
1st	Royal Scots	—	42	8	—	—	—	—	·53	190·5	—	—	12·62	4·62	24·25
2nd	South Lancashire Regiment	—	230	240	6	—	6	5	14·75	1043·5	26·08	21·74	64·13	23·47	22·49
1st	Welsh Regiment	4	475	327	4	—	4	7	16·72	660·6	8·42	14·76	35·20	12·88	18·71
2nd	Northamptonshire Regiment	6	670	714	5	1	6	26	49·31	1065·7	8·95	38·81	73·30	26·94	25·27
1st	Argyll and Sutherland Highlanders	6	637	293	2	—	2	11	18·78	460·0	3·14	17·27	29·48	10·79	23·46
	Garrison Staff and Departments	Various	158	39	1	—	1	1	2·39	246·8	6·33	6·33	15·13	5·61	22·71
	Mauritius.														
9/1	Royal Artillery, Western Division	1	85	147	1	—	1	4	5·23	1729·4	11·76	47·06	61·53	22·52	13·02
	Royal Engineers	Various	10	7	—	—	—	2	·26	700·0	—	200·00	26·00	9·52	13·59
Det.	Welsh Regiment	1	254	674	6	—	6	11	29·04	2653·5	23·62	43·31	114·33	41·85	15·77
	Garrison Staff and Departments	Various	14	5	1	—	1	—	·23	357·1	71·43	—	15·71	5·75	16·10

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Totals.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Ceylon.													days.	days.
5/1	Royal Artillery, Eastern Division	7	105	141	4	—	4	7	7·90	1342·8	38·10	66·66	75·24	27·54	20·51
6/1	Royal Artillery, Eastern Division	7	90	104	—	—	—	4	5·41	1155·5	—	44·44	60·11	22·00	19·04
1st	Royal Dublin Fusiliers	5	763	922	7	—	7	19	52·27	1208·4	9·17	24·90	68·51	25·07	20·71
	Garrison Staff and Departments	Various	27	13	—	—	—	2	·90	481·5	—	74·07	33·33	12·20	25·34
	China and Straits Settlements.														
1/1	Royal Artillery, Lancashire Division.	1	99	144	2	—	2	—	5·51	1454·5	20·20	—	55·66	20·37	14·00
8/1	Royal Artillery, Southern Division	8	115	118	—	—	—	7	5·55	1026·1	—	60·87	48·26	17·66	17·21
9/1	Royal Artillery, Southern Division	8	112	79	1	—	1	3	4·26	705·4	8·93	26·78	38·04	13·92	19·74
2nd	East Kent Regiment	5	808	643	6	—	6	39	36·15	795·8	7·42	48·27	44·74	16·37	20·51
1st	Royal Inniskilling Fusiliers	6	790	949	4	—	4	26	41·08	1201·3	5·06	32·90	52·00	19·03	15·84
	Garrison Staff and Departments	Various	64	15	—	1	1	1	·66	234·4	15·62	15·62	10·31	3·77	16·10

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	EGYPT.													days.	days.
	Camel Corps	—	18	2	—	—	—	—	·20	111·1	—	—	11·11	4·06	36·50
10th	Hussars	—	—	1	—	—	—	3	·87	—	—	—	—	—	—
19th	Hussars	2	382	527	4	—	4	23	32·24	1379·6	10·47	60·21	84·37	30·89	22·40
G/B	Royal Horse Artillery	2	150	164	—	—	—	5	8·92	1093·3	—	33·33	59·35	21·77	19·91
I/2	Royal Artillery	2	148	149	—	—	—	1	8·46	1006·7	—	6·75	57·04	20·92	20·78
C/4	Royal Artillery	1	—	—	—	—	—	—	·06	—	—	—	—	—	—
1/1	Royal Artillery	1	84	117	—	—	—	3	7·41	1392·8	—	35·71	88·14	32·29	23·18
5/1	Royal Artillery	2	122	161	2	—	2	5	12·35	1319·7	16·39	40·98	101·19	37·05	28·07
6/1	Royal Artillery	1	—	1	—	—	—	—	·12	—	—	—	—	—	—
6/1	Royal Artillery	2	104	105	1	—	1	7	6·83	1009·6	9·62	67·30	65·67	24·04	23·81
6/4	Royal Artillery	1	—	—	—	—	—	—	·01	—	—	—	—	—	—
M/1	Royal Artillery	1	—	—	—	—	—	—	·01	—	—	—	—	—	—
	Royal Engineers	2	235	367	5	—	5	16	19·89	1561·7	21·28	68·05	84·61	30·98	19·83
2nd	Royal Fusiliers	—	1	2	1	—	1	7	1·45	2000·0	1000·00	7000·00	1450·00	—	—
	Royal Irish Regiment	—	127	241	2	—	2	4	11·12	1897·6	15·74	31·51	87·56	32·05	16·87
1st	Yorkshire Regiment	—	268	336	5	—	5	2	17·51	1253·7	18·65	7·46	65·29	23·90	19·07
2nd	East Surrey Regiment	—	214	280	3	—	3	4	11·12	1308·4	14·02	18·69	51·96	19·02	14·53

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Egypt—*cont.*													days.	days.
2nd	Duke of Cornwall's Light Infantry	2	453	620	2	—	2	25	37·67	1368·6	4·41	55·18	83·12	30·43	22·24
	Royal Sussex Regiment	2	202	154	2	—	2	20	16·83	762·4	9·90	99·00	83·28	30·49	40·00
	South Staffordshire Regiment	1	364	495	6	—	6	9	23·50	1362·6	16·48	24·72	64·56	23·63	17·38
1st	Royal Highlanders	2	512	663	1	—	1	37	45·17	1294·9	1·95	72·46	88·19	32·29	24·93
2nd	Essex Regiment	1	420	614	8	—	8	16	34·62	1461·9	19·05	38·10	82·41	30·17	20·64
	Loyal North Lancashire	—	—	1	—	—	—	—	·07	—	—	—	—	—	—
1st	Royal Berkshire Regiment	—	308	316	3	—	3	—	14·64	1025·9	9·74	—	47·51	17·40	16·96
	Royal West Kent	2	429	588	1	—	1	12	36·65	1370·6	2·33	27·97	85·39	31·27	22·81
	King's Royal Rifles	2	414	608	16	—	16	33	39·92	1473·2	38·65	79·71	96·42	35·29	24·03
	York and Lancaster Regiment	—	5	—	—	—	—	20	3·84	—	—	4000·00	768·00	281·09	—
1st	Gordon Highlanders	2	619	893	8	—	8	32	49·11	1442·6	12·92	51·69	79·31	29·04	20·13
	Cameron Highlanders	2	425	366	2	1	3	12	21·04	861·2	7·06	28·23	49·50	18·12	21·04
	Mounted Infantry	2	70	115	—	—	—	—	6·89	1642·8	—	—	98·35	36·02	21·92
	Commissariat and Transport Corps	2	76	48	1	—	1	2	3·67	631·6	13·16	26·32	47·82	17·67	27·98
	Ordnance Store Corps	2	77	57	—	—	—	2	3·20	740·2	—	25·97	4·15	15·21	20·54
	Medical Staff Corps	2	169	159	—	—	—	9	9·30	940·8	—	53·25	54·96	20·14	21·41
	Garrison Staff and other Corps	2	72	40	1	—	1	11	10·67	555·5	13·90	152·78	148·19	54·24	97·63

ABSTRACT No. XLIII.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS, MORTALITY, and INVALIDING in each CORPS serving in the BENGAL COMMAND during the Year 1884.

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average daily Sick.	Ratio per 1,000 of Strength. Admissions into Hospital.	Deaths.	Invalids.	Average daily Sick.	Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India. yrs.	mo.
CAVALRY.														
1st Dragoon Guards	360	604	5	6	30·30	1677·8	13·89	16·67	84·17	30·81	18·36	Rawal Pindi, 12 months; Dett. Gharial, 5 months	5	0
3rd „ „	48	78	2	—	1·97	1625·0	41·67	—	41·04	15·02	9·24	Muttra, 1½ months	0	1½
6th „ „	384	566	2	6	25·58	1474·0	5·21	15·63	66·61	24·38	16·54	Meean Meer, ¼ month; Sialkot, 11½ months; depôt, Sialkot, ¼ month.	7	0
8th Hussars	416	1,012	3	17	40·29	2432·7	7·21	40·87	96·85	35·45	14·57	Meean Meer, ¼ month; Meerut, 10¾ months; with march, 1 month.	6	0
9th Lancers	449	978	4	15	26·74	2178·2	8·91	33·41	59·55	21·80	10·01	Umballa, 12 months	10	0
10th Hussars	25	24	—	4	2·06	960·0	—	160·00	82·40	30·16	31·41	Lucknow, 1 month	11	1
13th „	380	486	3	4	21·06	1278·9	7·89	10·53	55·42	20·28	15·86	Meerut, 1 month; Muttra, 8½ months; on the march, ½ month.	11	0
17th Lancers	404	679	5	5	34·80	1680·7	12·38	12·38	86·14	31·53	18·76	Lucknow, 11 months	0	11½
Total	2,466	4,427	24	57	182·80	1795·2	9·73	23·11	74·13	27·13	15·11			
ROYAL ARTILLERY.														
D/A Royal Horse Artillery	144	210	5	2	9·74	1458·3	34·72	13·89	67·64	24·76	16·98	Rawal Pindi, 1½ months; Sialkot, 9¾ months; on the march, ¾ month.	8	0
E/A „ „	170	269	3	12	10·87	1582·4	17·65	70·59	63·94	23·40	14·79	Meerut, 10½ months; Lucknow, 1½ month	8	0

Corps.		Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
							Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
F/A Royal Horse Artillery	-	160	381	3	4	11·87	2381·3	18·75	25·00	74·19	27·15	11·40	Umballa, 10 months; Meerut, 1½ months; on the march, ½ month.	9	0
G/A „ „	-	173	253	—	9	12·88	1462·4	—	52·02	74·45	27·25	18·63	Meerut, 12 months - - - - -	9	0
L/A „ „	-	162	443	4	8	14·20	2734·6	24·69	49·38	87·65	32·08	11·73	Umballa, 12 months - - - - -	8	0
K/B „ „	-	157	208	5	—	7·62	1324·8	31·85	—	48·54	17·76	13·41	Meean Meer, ½ month; Rawal Pindi, 10¾ months; on the march, ¾ month.	4	0
N/B „ „	-	154	179	3	3	11·57	1162·3	19·48	19·48	75·13	27·50	23·66	Lucknow, 11¾ months; on the march, ¼ month -	7	0
A/1 Royal Artillery	-	153	349	3	4	16·56	2281·0	19·61	26·14	108·24	39·61	17·37	Dinapore, 12 months - - - - -	1	1½
B/1 „ „	-	159	366	4	9	17·09	2301·9	25·16	56·60	107·48	39·34	17·09	Mooltan, 12 months - - - - -	4	0
G/1 „ „	-	179	236	1	4	9·30	1318·4	5·59	22·35	51·96	19·02	14·42	Cawnpore, 12 months - - - - -	4	0
1/1 Eastern Divn.	-	16	36	—	—	1·00	2250·0	—	—	62·50	22·87	10·17	Rawal Pindi, 2 months - - - -	0	2
1/1 London Divn.	-	14	36	—	—	·90	2571·4	—	—	64·29	23·53	9·15	Campbellpore, 2 months - - - -	0	2
2/1 Scottish Divn.	-	89	114	—	2	5·44	1280·9	—	22·47	61·12	22·37	17·47	Rawal Pindi, 12 months; Dett. Khyragully, 6 months.	1	1½
3/1 Scottish Divn.	-	112	129	2	4	7·97	1151·8	17·86	35·71	71·16	26·04	22·61	Calcutta, 12 months - - - - -	1	1½
4/1 Lancashire Divn.	-	116	440	4	5	11·70	3793·1	34·48	43·10	100·86	36·92	9·73	Fort Lahore, 12 months; Dett. Amritsar, 12 months.	5	0
5/1 „ „	-	89	177	3	13	8·19	1988·8	33·71	146·07	92·02	33·68	16·94	Fortress Gwalior, 12 months - - - -	9	0
5/1 Southern Divn.	-	85	247	2	8	13·18	2905·9	23·53	94·12	155·06	56·75	19·53	Agra, 12 months - - - - -	9	0
5/1 Western Divn.	-	114	219	1	4	8·80	1921·1	8·77	35·09	77·19	28·25	14·71	Ferozepore, 12 months - - - -	6	0
5/1 South Irish Divn.	-	88	124	2	3	4·30	1409·1	22·73	34·09	48·86	17·88	12·69	Rawal Pindi, 9½ months; Dett. Kalabagh, 5 months.	14	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
6/1 Southern Divn.	116	199	1	5	6·97	1715·5	8·62	43·10	60·09	21·99	12·82	Fort Allahabad, 12 months	9	0
6/1 Western Divn.	76	125	6	2	6·81	1644·7	78·95	26·32	89·61	32·79	19·94	Morar, 10⅔ months	14	0
7/1 Northern Divn.	93	129	1	4	5·67	1387·1	10·75	43·01	60·97	22·31	16·09	Umballa, 2¼ months; Jutogh, 7 months; on the march, 2¾ months.	7	0
7/1 Southern Divn.	100	110	3	6	6·17	1100·0	30·00	60·00	61·70	22·58	20·53	Campbellpore, 12 months	9	0
8/1 Northern Divn.	107	214	2	6	9·19	2000·0	18·69	56·07	85·89	31·43	15·72	Campbellpore 12 months; Dett. Fort Attock, 12 months.	6	0
8/1 London Divn.	4	5	1	2	1·00	1250·0	250·00	500·00	250·00	91·50	73·20	Delhi, ¼ month	8	0
9/1 Eastern Divn.	111	514	3	2	13·07	4630·6	27·03	18·02	117·75	43·10	9·31	Delhi, 9¾ months	0	9¾
9/1 C. Ports Divn.	87	105	1	1	6·02	1206·9	11·49	11·49	69·20	25·33	20·98	Rawal Pindi, 10½ months; on the march, 1½ months; Dett. Baragully, 4½ months; Dett. Thobba, 1 month.	1	7½
J/2 Royal Artillery	162	196	1	3	9·93	1209·9	6·17	18·52	61·30	22·43	18·54	Allahabad, 10 months; on the march, 2 months	7	0
R/2 " "	172	268	1	—	9·86	1558·1	5·81	—	57·33	20·98	13·47	Jullundur, 10½ months; on the march, 1½ months	7	0
K/3 " "	154	366	2	5	15·09	2376·6	12·99	32·47	97·99	35·86	15·09	Morar, 12 months	4	0
L/3 " "	150	291	5	6	14·78	1940·0	33·33	40·00	98·53	36·06	18·59	Meerut, 12 months	5	0
M/3 " "	157	497	5	—	16·46	3165·6	31·85	—	104·84	38·37	12·12	Peshawar, 12 months	4	0
N/3 " "	150	381	2	6	12·49	2540·0	13·33	40·00	83·27	30·48	12·00	Meean Meer, 11¼ months; on the march, ¾ month	4	0
O/3 " "	162	175	4	8	8·65	1080·2	24·69	49·38	53·40	19·54	18·09	Agra, 10 months; Lucknow, 1¼ months; on the march, ¾ month.	4	0
P/3 " "	153	484	4	8	15·45	3163·4	26·14	52·29	100·98	36·96	11·68	Meean Meer, 12 months	8	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
Q/3 Royal Artillery	165	173	—	1	7·68	1048·5	—	6·06	46·55	17·04	16·25	Saugor, 12 months	8	0
B/3 " "	150	216	5	8	12·13	1440·0	33·33	53·33	80·87	29·60	20·55	Fyzabad, 12 months	8	0
B/4 " "	165	230	1	5*	9·79	1393·9	6·06	30·30	59·33	21·72	15·58	Rawal Pindi, 10 months; on the march, 2 month; Dett. Gharial, 5 months.	11	0
C/4 " "	151	330	5	9	11·11	2185·4	33·11	59·60	73·58	26·93	12·32	Nowgong, 11¾ months; on the march, ¼ month	11	0
D/4 " "	172	149	3	6	9·55	866·3	17·44	34·88	55·52	20·32	23·46	Lucknow, 10 months; Agra, 1¼ months; on the march, ¾ month.	11	0
E/4 " "	151	150	2	6	8·63	993·4	13·25	39·74	57·15	20·92	21·06	Bareilly, 12 months	11	0
F/4 " "	149	321	2	5	16·66	2154·4	13·42	33·56	111·81	40·92	18·99	Morar, 12 months	11	0
G/4 " "	144	222	8	8	11·82	1541·7	55·56	55·56	82·08	30·04	19·49	Meerut, 12 months	11	0
L/4 " "	163	248	3	6	9·88	1521·5	18·40	36·81	60·61	22·18	14·58	Ferozepore, 12 months	8	0
O/4 " "	152	241	4	4	9·63	1585·5	26·32	26·32	63·36	23·19	14·62	Barrackpore, 12 months	8	0
Total	5,850	10,755	120	216	447·67	1838·5	20·51	36·92	76·52	28·01	15·23			
41st Coy., Royal Engineers	21	24	—	3	·74	1142·9	—	142·86	35·24	12·90	11·28	Roorkee, 12 months	17	0
INFANTRY.														
2nd R.W. Surrey Regiment	858	933	6	35	38·17	1087·4	6·99	40·79	44·49	16·28	14·97	Umballa, 2 months; Subathu, 7¾ months; Cawnpore, 1 month; on the march, 1¼ months; Dett. Jutogh, 7¾ months.	7	0
2nd Northumberland Fusiliers	656	573	3	15	29·57	873·5	4·57	22·87	45·08	16·50	18·89	Meerut, 2 months; Chakrata, 7¾ months; Meean Meer, 1 month; on the march, 1¼ months.	5	0
2nd R. Warwickshire Regt.	675	866	8	27	50·33	1283·0	11·85	40·00	74·56	27·29	21·27	Calcutta, 12 months	7	0

* One of the men of the B/4 Royal Artillery had attempted to commit suicide, and was retained in the country after he was invalided.

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
2nd Liverpool Regiment	562	550	1	10	30·83	978·6	1·78	17·79	54·86	20·08	20·52	Meerut, 1¾ months; Ranikhet, 7¾ months; on the march, 2½ months; Depôt at Ranikhet, 2½ months.	8	0
2nd Norfolk Regiment	797	1,822	18	30	82·22	2286·1	22·58	37·64	103·16	37·76	16·52	Morar, 12 months; Dett. Fortress Gwalior, 3½ months.	11	0
2nd Lincolnshire Regiment	487	519	6	12	28·67	1065·7	12·32	24·64	58·87	21·55	20·22	Sitapur, 10¾ months; Morar, ½ months; on the march, ¾ month; and Dett. Chunar, 3 months.	3	0
Half Bn. " "	249	382	6	5	15·52	1534·1	24·10	20·08	62·33	22·81	14·87	Benares, 10 months; on the march, 1 month	3	0
2nd Devonshire "	877	1,175	3	23	53·12	1339·8	3·42	26·23	60·57	22·17	16·55	Umballa, 1 months; Jullundur, 8½ months; Jhansi, ¼ month; on the march, 2¼ months; Dett. Dagshai, 8 months.	8	0
1st Suffolk "	514	863	6	22	32·36	1679·0	11·67	42·80	62·06	23·04	13·72	Roorkee, 12 months; Dett. Chakrata, 7 months	9	0
Half Bn. "	361	1,844	6	16	50·90	5108·0	16·62	44·32	141·00	51·60	10·10	Delhi, 12 months	9	0
2nd W. Yorkshire "	609	1,204	4	22	44·27	1977·0	6·57	36·12	72·69	26·61	13·46	Sialkot, 12 months; Dett. at Amritsar, 12 months	7	0
2nd Leicester "	859	1,174	2	12	50·62	1366·7	2·33	13·97	58·93	21·57	15·78	Jubbulpore, 12 months; Dett. Saugor, 12 months	9	0
1st Royal Irish "	605	1,015	10	36	51·74	1677·7	16·53	59·50	85·52	31·30	18·66	Meerut, 7¾ months; Dett. Fatehgarh, 7¼ months	11	0
2nd Cheshire "	887	1,835	5	14	58·88	2068·8	5·64	15·78	66·38	24·30	11·74	Peshawar, 1 month; Umballa, 9 months; on the march, 2 months; Dett. Dagshai, 2 months; Dett. Solon, 7 months.	12	9
1st R. W. Fusiliers	886	964	7	19	56·42	1088·0	7·90	21·44	63·68	23·31	21·42	Dum Dum, 12 months; Dett. Barrackpore, 12 months.	5	0
1st K. O. Borderers	850	718	1	13	34·21	844·7	1·18	15·29	40·25	14·73	17·44	Umballa, 3 months; Dagshai, 7 months; Meerut, ¼ month; on the march, 1¾ months; Depôt, Dagshai, 3 months.	10	0
1st East Lancashire Regiment	684	2,556	3	62	82·03	3736·8	4·39	90·64	119·93	43·89	11·75	Meean Meer, 11 months; Ferozepore, ½ month; on the march, ½ month; Dett. Fort Lahore, 11 months.	5	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
1st W. Riding Regiment	949	1,589	4	36	59·36	1674·4	4·21	37·93	62·55	22·89	13·67	Nowshera, 10½ months; Rawal Pindi, 1½ months; Dett. Fort Attock, 12 months; Dett. Cherat, 6 months.	10	0
1st Border Regiment	782	1,482	8	45	74·43	1895·1	10·23	57·54	95·18	34·84	18·38	Agra, 12 months	11	0
1st South Lancashire Regt.	728	1,531	14	32	71·55	2103·0	19·23	43·96	98·28	35·97	17·10	Peshawar, 9¾ months; on the march, ¼ month; Dett. Cherat, 5 months.	13	0
1st South Yorkshire „	892	1,550	18	22	74·02	1737·7	20·18	24·66	82·98	30·37	17·48	Dinapore, 12 months; Dett. at Chunar, 9 months	13	0
2nd Dorsetshire „	600	1,429	2	20	52·82	2381·7	3·33	33·33	88·03	32·22	13·53	Peshawar, 11 months; on the march, 1 month; Dett. at Cherat, 6 months.	14	0
4th King's Royal Rifle Corps	861	1,379	5	17	50·63	1601·6	5·81	19·74	58·80	21·52	13·44	Ferozepore, 12 months	8	0
1st Durham L. Infantry	582	848	11	12	37·86	1457·0	18·90	20·62	65·05	23·81	16·34	Allahabad, 12 months; Dett. at Fort Allahabad, 12 months.	13	0
2nd East Surrey Regt.	553	719	10	26	42·71	1300·2	18·08	47·02	77·23	28·27	21·74	Dinapore, ½ month; Bareilly, 6 months; on the march, 1½ months; Dett. Moradabad, 6 months.	14	0
2nd Highland L. Infantry	149	189	—	—	8·04	1268·5	—	—	53·96	19·75	15·57	Umballa, 2 months	0	2
2nd Seaforth Highlanders	603	584	4	13	32·97	968·5	6·63	21·56	54·68	20·01	20·66	Lucknow, 12 months	4	0
1st Royal Irish Fusiliers	909	848	5	11	40·85	932·9	5·50	12·10	44·94	16·45	17·63	Rawal Pindi, 12 months; Dett. Changla Gully, 2 months; Dett. Kuldunnah, 6½ months; Dett. Camp Topa, 4 months.	1	2
1st Connaught Rangers	413	496	5	15	22·33	1201·0	12·11	36·32	54·07	19·79	16·48	Bareilly, 12 months; Dett. at Chaubuttia, 7½ months.	6	0
Half Bn. „ „	159	191	2	2	6·37	1201·3	12·58	12·58	40·06	14·66	12·21	Shahjehanpur, 8¾ months	6	0
2nd Scottish Rifles	554	764	5	10	28·10	1379·1	9·03	18·05	50·72	18·56	18·46	Cawnpore, 11¼ months; on the march, ¾ month; Dett. at Fatehgarh, 11¼ months.	6	0
Half Bn. „	26	8	—	—	1·87	307·7	—	—	71·92	26·32	35·55	Shahjehanpur, ¼ month	6	0
2nd Derbyshire Regiment	826	873	10	22	53·34	1056·9	12·11	26·63	64·58	23·63	22·36	Lucknow, 12 months	2	2

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
2nd Manchester Regiment .	853	2,128	9	39	105·84	2494·7	10·55	45·72	124·08	45·41	18·20	Mooltan, 12 months	2	2
2nd Wiltshire „ .	613	982	3	11	32·73	1602·0	4·89	17·94	53·39	19·54	12·20	Rawal Pindi, 10 months; Nowshera, 2 months; Dett. at Gharial, 5 months; Dett. at Peshawar, 2¼ months.	2	2
1st Leinster „ .	766	1,064	3	16	59·15	1389·0	3·92	20·89	77·22	28·26	20·35	Fyzabad, 12 months	8	0
4th Bn. Rifle Brigade .	790	1,473	9	20	44·40	1864·6	11·39	25·32	56·20	20·57	11·03	Jhansi, 12 months; Dett. at Fortress Gwalior, 12 months; Dett. at Nowgong, 11½ months.	12	0
Total . . .	24,024	39,120	222	742	1689·23	1628·4	9·24	30·89	70·31	25·74	15·80			
Men Attached (Corps, not stated).	367	194	3	—	6·02	528·6	8·17	—	16·40	6·00	11·36	Various stations.		
Garrison Staff and Departments.	968	928	22	56	62·70	959·3	22·27	56·68	63·46	23·23	24·73	Various stations.		
Grand Total . .	33,716	55,448	391	1,074	2389·16	1644·6	11·60	31·85	70·86	25·94	15·77			

ABSTRACT No. XLIV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS, MORTALITY, and INVALIDING in each CORPS serving in the MADRAS COMMAND for the Year 1884.

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Averag Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.		Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Constantly Sick.				months.	yrs.	mo.
CAVALRY.															
12th Lancers	431	564	3	9	34	1308·58	6·96	20·88	78·88	28·87	22·06	Bangalore	12	8	0
14th Hussars	479	532	5	7	24	1110·65	10·44	14·61	50·10	18·34	16·51	Secunderabad	12	3	0
Total.	910	1,096	8	16	58	1204·39	8·79	17·58	63·74	23·32	19·37				
ROYAL ARTILLERY.															
E/B Bde. Royal Horse Artillery	155	146	2	1	9	941·93	12·90	6·45	58·06	21·25	22·56	Bangalore	12	11	0
M/B " " "	142	126	—	6	7	887·32	—	42·25	49·29	18·04	20·33	Secunderabad	12	7	0
D/1 " Royal Artillery	144	147	2	4	9	1020·83	13·89	27·77	62·50	22·87	22·41	Secunderabad	12	1	2
O/1 " "	121	154	—	4	7	1272·72	—	33·06	57·85	21·17	16·64	Kamptee (left for England)	10	15	0
P/1 " "	141	192	2	1	10	1361·70	14·18	7·09	70·92	25·96	19·06	St. Thomas' Mount, 10¾; and Bangalore, 1¼		5	0
Q/1 " "	145	177	2	5	8	1220·69	13·79	34·48	55·17	20·19	16·54	St. Thomas' Mount	12	6	0
R/1 " "	129	140	1	6	9	1085·27	7·75	46·51	69·77	25·54	23·53	Bellary	12	6	0
S/1 " "	169	173	—	—	9	1023·67	—	—	53·25	19·49	19·04	Bangalore	12	5	0
U/1 " "	27	45	—	—	1	1666·66	—	—	37·04	13·55	8·13	Kamptee (arrived from England)	2	0	2
M/2 " "	157	117	—	3	8	745·22	—	19·11	50·96	18·65	25·02	Bangalore	12	6	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.		Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Constantly Sick.				months.	yrs.	mo.
I/3 Bde. Royal Artillery -	161	222	1	3	13	1378·88	6·21	18·63	80·74	29·55	21·46	Secunderabad, 11; Bangalore, 1 - -		5	0
7/1 Eastern Division, R.A. -	99	79	1	5	3	797·98	10·10	50·50	30·30	11·09	13·90	Thayetmyo - - - - -	12	5	0
4/1 Welsh Div. „ -	86	82	—	4	6	953·49	—	46·51	69·77	25·54	26·78	Secunderabad - - - - -	12	5	0
1 „ „ -	103	129	1	7	9	1252·43	9·71	67·96	87·38	31·98	25·53	St. Thomas' Mount and Madras - -	12	5	0
1 North Irish Div. „ -	105	180	1	4	8	1714·28	9·52	38·10	76·19	27·88	16·27	St. Thomas' Mount, ¼; on the march, ¼; and Rangoon, 11½.		3	0
6/1 South Irish Div. „ -	89	74	—	1	1	831·46	—	11·23	11·23	4·11	4·94	Thayetmyo - - - - -	12	9	0
8/1 London Division „ -	87	144	2	—	5	1655·17	22·98	—	57·47	21·03	12·71	Toungoo, 9½; (from Delhi) - - -	9½	9	0
9/1 Eastern Division „ -	13	11	1	—	1	846·15	76·93	—	76·93	28·15	33·27	Toungoo, 2 (and left for Delhi 1st March 1884)		4	0
Details, R.A. - - -	18	2	—	—	—	111·11	—	—	—	—	—				
Total - -	2,091	2,340	16	54	123	1119·08	7·65	25·82	58·82	21·53	19·24				
ROYAL ENGINEERS.															
2nd Coy., Royal Engineers -	53	23	—	3	1	433·96	—	56·60	18·87	6·91	15·91				
INFANTRY.															
2nd Bn. Roy. Fusiliers C. L. Regiment.	858	776	3	20	43	904·43	3·49	23·31	50·12	18·34	20·28	Cannanore, ½; Bellary, 10½; on the march, 1		12	0
2nd Bn. Prince Albert's Somersetshire Regiment.	555	778	2	14	31	1401·80	3·60	25·22	55·85	20·44	14·58	Rangoon (detachment at Port Blair) -	12	6	0
2nd Bn. Bedfordshire Regt. -	474	444	2	14	18	936·71	4·22	29·54	37·97	13·90	14·84	Thayetmyo - - - - -	12	9	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.		Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Constantly Sick.				months.	yrs.	mo.
Wing 2nd Bn. Bedfordshire Regiment.	358	416	3	5	24	1162·01	8·38	13·97	67·04	24·54	21·11	Toungoo - - - - - -	12	9	0
2nd Bn. Royal Scots Fusiliers	673	651	4	13	32	967·31	5·94	19·32	47·55	17·40	17·99	Thayetmyo, ½; Secunderabad, 11; and on the march, ½.		2	11
2nd Bn. South Wales Borderers.	617	989	12	14	49	1602·92	19·45	22·69	79·42	29·06	18·13	Madras (detachment at Malliaporam) -	12	4	0
2nd Bn. Hampshire Regiment	817	653	5	39	45	799·26	6·12	47·73	55·08	20·16	25·22	Cannanore, 11½; on the march, ½ - -		12	0
1st Bn. Oxfordshire Light Infantry.	909	876	4	14	48	963·70	4·40	15·40	52·81	19·32	20·05	Bangalore - - - - - -	12	12	0
1st Bn. Essex Regiment -	145	47	—	17	4	324·14	—	117·24	27·59	10·09	31·15	Madras, 2 (left for Aden) - - -		12	2
2nd Bn. Middlesex Regiment	756	904	12	13	51	1195·77	15·87	17·19	67·46	24·69	20·64	Secunderabad, 11; and on the march, 1 -		4	0
2nd Royal Munster Fusiliers -	662	894	9	9	35	1350·45	13·59	13·59	52·87	19·35	14·33	Kamptee, 9; arrived from England - -		0	9
Details of Infantry - -	65	63	—	—	2	969·23	—	—	30·77	11·26	11·62				
Total - -	6,889	7,491	56	172	382	1087·38	8·13	24·97	55·45	20·29	18·66				
CONVALESCENT DEPÔTS.															
Poonamallee - - -	157	305	7	59	30	1942·67	44·58	375·80	191·08	69·93	36·00				
Wellington - - -	554	657	2	37	43	1185·92	3·61	66·79	77·62	28·41	23·95				
Total - -	711	962	9	96	73	1353·02	12·66	135·02	102·67	37·57	27·77				
Garrison, Staff, and Departments.	158	48	4	9	2	303·79	25·32	56·96	12·66	4·63	15·25				
Grand Total - -	10,812	11,960	93	350	639*	1106·18	8·60	32·37	59·10	21·63	19·55				

* Excluding the convalescents and detained.

ABSTRACT No. XLV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS, MORTALITY, and INVALIDING in each CORPS, serving in the BOMBAY COMMAND for the Year 1884.

Corps.	Completed years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.
							Admitted.	Died.	Invalided.	Constantly Sick.			
CAVALRY.													
17th Lancers	6	28	34	—	12	·49	1214·3	—	428·6	17·5	6·41	5·27	Mhow, 1 month.
7th Dragoon Guards	1	437	590	2	5	32·88	1350·1	4·58	11·4	75·2	27·54	20·40	„ 11 months.
Total	—	465	624	2	17	33·37	1341·9	4·30	36·6	71·8	26·27	19·57	
ROYAL ARTILLERY.													
D Battery, B Brigade R.H.A.	12	166	191	1	8	10·90	1150·6	6·02	48·2	65·7	24·03	20·89	Kirkee, 12 months.
E „ 1 „ R.A.	2	142	173	4	5	12·05	1218·3	28·17	35·2	84·9	31·06	25·49	„ „
F „ 1 „ „	2	148	188	3	3	9·93	1270·3	20·27	20·3	67·1	24·56	19·33	„ „
I „ 1 „ „	15	104	206	—	8	10·88	1980·8	—	76·9	104·6	38·29	19·33	Ahmednagar, 10 months.
N „ 1 „ „	15	27	19	1	—	1·32	703·7	37·04	—	48·9	17·89	25·43	Hyderabad, 2 „
T „ 1 „ „	1	26	24	—	—	1·04	923·1	—	—	40·0	14·64	15·86	Kirkee, 2 „
A „ 2 „ „	10	133	189	2	4	9·07	1421·1	15·04	30·1	68·2	24·96	17·56	Deesa, 11 „
B „ 2 „ „	10	125	233	1	7	8·28	1864·2	8·00	56·0	66·2	24·24	13·01	Neemuch, 12 „
C „ 2 „ „	10	155	314	5	7	8·89	2025·8	32·26	45·2	57·4	20·99	10·36	Kirkee, 1 month; Hydrabad, 11 months.
D „ 2 „ „	10	141	170	—	11	7·95	1205·7	—	78·0	56·4	20·64	17·12	Ahmedabad, 10½ months.
E „ 2 „ „	10	133	164	—	4	8·16	1233·1	—	30·1	61·4	22·46	18·21	Karachi, 12 months.

Corps.	Completed years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.
							Admitted.	Died.	Invalided.	Constantly Sick.			
F Battery, 2 Brigade R.A. -	10	143	225	6	3	9·34	1573·4	41·96	21·0	65·3	23·90	15·19	Nasirabad, 12 months.
G „ 2 „ „ -	10	155	133	—	2	7·24	858·1	—	12·9	46·7	17·10	19·92	Belgaum, 12 months.
A „ 4 „ „ -	11	143	219	4	4	5·71	1531·5	27·97	28·0	39·9	14·61	9·54	Mhow, 11 months; Neemuch, ½ month.
5 Batt., 1 Brgd., R.A., N.Ir.Dn.	10	97	122	—	4	5·94	1257·7	—	41·2	61·2	22·41	17·82	Colaba, 12 months.
5 „ 1 „ S.I. Dn.	12	49	21	—	—	2·58	428·6	—	—	52·7	19·27	44·97	Aden, 2 „
6 „ 1 „ West.Dn.	12	62	46	—	—	2·86	741·9	—	—	46·1	16·88	22·76	Aden, 2 „
7 „ 1 „ Lond.Dn.	12	57	86	1	5	5·75	1508·8	17·55	87·7	100·9	36·92	24·47	Aden, 10 „
7 „ 1 „ C.P. Dn.	3	96	258	5	3	11·02	2687·5	52·08	31·3	114·8	42·01	15·63	Quetta, 12 „
8 „ 1 „ East.Dn.	12	41	94	—	6	6·94	2292·7	—	146·3	169·3	61·95	27·02	Aden, 10 „
8 „ 1 „ C.P. Dn.	3	90	132	—	—	3·99	1466·7	—	—	44·3	16·23	11·06	Mhow, 12 „
9 „ 1 „ Scot.Dn.	14	104	99	—	4	4·37	951·9	—	38·5	42·0	15·38	16·16	Colaba, 12 „
9 „ 1 „ North.Dn.	—	70	112	1	2	5·11	1600·0	14·29	28·6	73·0	26·72	16·70	Quetta, 11½ „
Total - -	—	2,407	3,418	34	90	159·32	1420·0	14·18	37·4	66·2	10·99	7·74	
Royal Engineers - -	—	80	34	—	3	1·01	425·0	—	37·5	12·6	4·62	10·87	Kirkee, 12 months; Quetta, 12 months.

Corps.	Completed years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Died.	Invalided.	Constantly Sick.	Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.
Infantry.													
2nd Royal Lancaster Regiment	5	542	660	6	12	31·59	1217·7	11·07	22·1	58·3	21·33	17·52	Poona, 12 months.
2nd East Yorkshire Regiment	10	832	1,035	11	17	50·26	1244·0	13·22	20·4	60·4	22·11	17·77	Colaba, 12 „
2nd Lancashire Fusiliers	4	745	1,626	2	14	73·27	2182·6	2·68	18·8	98·3	35·99	16·49	Mhow, 12 „
1st Worcestershire Regiment	6	565	987	9	14	36·70	1746·9	15·93	24·8	65·0	23·77	13·61	Nasirabad, 10 months; Karachi, 2 months.
1st Loyl. N. Lanc. Regiment	1	844	1,162	5	23	79·85	1376·8	5·92	27·3	94·6	34·63	25·15	Ahmednagar, 7 months; Quetta, 3 months.
1st South Lancashire Regt.	12	137	125	—	—	6·25	912·4	—	—	45·6	16·70	18·30	Aden, 2 months.
2nd Gloucestershire Regiment	5	713	1,006	9	23	41·53	1410·9	12·62	30·9	58·2	21·32	15·11	Karachi, 10 months; Poona, 2 months.
2nd North Stafford Regiment	5	672	1,526	33	27	50·35	2270·8	49·11	40·2	74·9	27·42	12·07	Quetta, 11 months.
1st York and Lanc. Regiment	13	136	39	—	2	1·61	286·8	—	14·7	11·8	4·33	15·11	Aden, 2 „
Essex Regiment	12	203	428	4	12	10·29	2108·4	19·70	59·1	50·7	18·55	8·80	„ 9 „
1st Bn. Rifle Brigade	5	678	676	4	14	40·69	997·1	5·90	20·6	60·0	21·96	22·03	Belgaum, 11½ months.
Total	—	6,067	9,270	83	157	422·39	1527·9	13·68	25·9	69·6	25·48	16·68	
Depôts, &c.													
Colaba Depôt	—	114	103	1	26	16·57	903·5	8·77	228·1	145·4	53·19	58·88	Colaba.
Deolalee Depôt	—	424	448	12	1	11·99	1056·6	28·30	2·4	28·3	10·35	9·79	Deolalee.

Corps.	Completed Years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average duration of each Case of Sickness.	Stations occupied during the Year.
							Admitted.	Died.	Invalided.	Constantly Sick.			
DEPÔTS, &c.—*continued.*													
Convalescents . .	—	68	164	—	17	10·01	2411·8	—	250·0	147·2	53·88	22·34	Purandhur, 12 months.
" . .	—	30	114	2	—	4·48	3800·0	66·67	—	149·3	54·66	14·38	Taragarh, 6½ months.
" . .	—	98	209	—	2	5·76	2132·7	—	20·4	58·8	21·51	10·09	Abu, 12 months.
Garrison Staff and Departments . . .	—	144	64	2	4	2·23	4444·4	13·89	27·8	15·5	5·67	12·75	
Various Corps . .	—	168	150	6	21	11·62	892·9	35·71	125·0	69·2	25·32	28·35	
Troops on the March .	—	577	529	61	—	12·24	916·8	105·72	—	21·2	7·76	8·47	
Military Prison . .	—	80	48	—	—	2·91	600·0	—	—	36·4	13·31	22·19	Poona, 12 months.
Rest Camp . . .	—	2	3	1	—	—	1500·0	500·00	—	—	—	—	Khundwa, 12 months.
Total . . .	—	1,705	1,832	85	71	77·81	1074·5	49·85	41·6	45·6	16·70	15·55	
Grand Total .	—	10,724	15,178	204	338	693·90	1415·3	19·02	31·52	64·70	23·68	16·73	

APPENDIX No. 1.

MEDICAL HISTORY OF THE NILE EXPEDITIONARY FORCE, FROM 18TH MARCH 1884 TO 31ST JULY 1885.

By Surgeon-Major G. B. MOUAT, M.D.

This report embraces a period extending from 18th March 1884 to 31st July 1885, the latter date being that on which the last detachment of the Nile Expeditionary Force not forming the permanent garrison of the Soudan reached Wady Halfa on its return north. The medical history of the Expedition ought properly to commence in September 1884, in which month Lord Wolseley and Staff proceeded up the river; but at that date the stations of Assiout, Assouan, and Wady Halfa were already in occupation by an advance party which left Cairo on 18th March 1884, and whose health statistics had, from date of their departure, been excluded from those of the army of occupation in Egypt. The strength of this pioneer force was small, and as any attempt to separate its health statistics from those of the Expeditionary Force would have been attended with difficulty and confusion they have been amalgamated with them.

The estimated strength of non-commissioned officers and men of the regular forces employed with the expedition was 10,771. The force comprised the following corps; viz, Camel Corps—Heavy, Light, and Guards; 19th and 20th Hussars; Royal Artillery; Royal Engineers; 1st Royal Irish Regiment; 1st Yorkshire Regiment; 2nd Duke of Cornwall's Light Infantry Regiment; 1st Royal Sussex Regiment; Detachment, 2nd Sussex Regiment; 1st South Staffordshire Regiment; 1st Royal Highlanders; 2nd Essex Regiment; Detachment, 1st Berkshire Regiment; 1st Royal West Kent Regiment; 1st Gordon Highlanders; Cameron Highlanders; 3rd Transport Company; Mounted Infantry; General Staff; Commissariat and Transport Corps; Medical Staff Corps, and Ordnance Store Corps. The 1st Yorkshire Regiment, Cameron Highlanders, and Detachment, 2nd Royal Sussex Regiment stationed at Assouan, Korosko, and Assiout respectively took no active part in the Expedition; neither did the 20th Hussars who proceeded up the Nile in July to relieve the 19th.

8,953 men were admitted, 557 died, and 630 were invalided, giving ratios of 831·21, 51·71, and 58·49 respectively per mille of strength.* Of the deaths, 389 were due to disease and 38 to accident, while 84 men were killed in action, and 42 died subsequently from their wounds. In addition to these, 1 death occurred from suicide, 1 from alcoholic poisoning, and 2 from causes unknown. Of the latter, 1 man was found dead in bed, and the other died on passage down the Nile. The cause of death in these cases could not be ascertained.

The admissions, deaths, and invaliding in the various classes and orders of disease were as follows, viz.:—

1. *General Diseases.*—The febrile group contributed 2,514 admissions, 288 deaths, and 108 invalids, giving ratios per mille of strength of 233·40, 26·74, and 10·03 respectively.

Eruptive Fevers caused 47 admissions and 5 deaths. Of the admissions, 41 were due to small-pox, five to chicken pox, and 1 to scarlet fever. All the deaths were due to small-pox. In every case of this disease where particulars are given the patient bore marks of vaccination. In some the marks were good, in others bad; in some re-vaccination had failed. The disease was very prevalent at several stations among the native community. At Dal in December 1884 no less than 39 cases were treated in one week among natives.

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* The ratios throughout the Report are calculated as per 1,000 of the strength.

Continued Fevers caused 2,395 admissions, 283 deaths, and 103 invalids, giving ratios of 222·35, 26·27, and 9·56 respectively. Four distinct diseases are comprised under this heading, viz.:—

1. *Typhus Fever.*—No case was recorded.

2. *Enteric Fever* contribued 760 admissions, 277 deaths, and 63 invalids. The invaliding recorded under this head is less than it really was, for as men recovered from an enteric attack many had their diseases changed to "General Debility," under which affection they were finally disposed of. The admission, death, and invaliding ratios amount to 70·6, 25·71, and 5·85 respectively. 8·4 per cent. of the admissions and 49·7 per cent. of the deaths from all causes were due to this disease. The per-centage of deaths to cases treated amounts to 36·44.

In civil life the average mortality is given at about 1 in 5·4 cases, ranging usually from 15 to 25 per cent., and varying in different epidemics, with the mode of treatment pursued and other circumstances. There are good grounds for believing that in the Nile Force health statistics the admissions recorded under the head of enteric fever do not show accurately the number of cases treated. Admissions under the heading "Not yet diagnosed" have been rare, showing that diseases were classified quickly; that they were in several cases classified incorrectly is shown by the fact that in many instances diseases originally diagnosed as simple continued fever, febricula, &c. had to be changed to enteric. In the case of simple continued fever alone this change was made in 130 instances. Cases in which the original diagnosis was altered were presumably undoubted cases of enteric fever with well-defined features, and it is but reasonable to infer that many cases of milder type were permitted to remain as originally diagnosed, viz., febricula, simple continued fever, diarrhœa, &c.

To what cause or causes can we attribute the prevalence of this fatal disease among the men of the Nile Expeditionary Force? The causes of enteric fever are generally classified under two heads, viz., the predisposing and the exciting. Under the former are comprised age, overwork, and mental depression, or debility from any cause; under the latter, introduction of a specific poison through the medium of the air, water, or food, and particularly of milk; contact with soiled clothing or those affected with the disease. Age materially influences the occurrence of this disease, it being most common during youth and adolescence, but rare in persons beyond 45 or 50 years of age. Individuals under 30 are said to be twice as liable as those over 30, and half of the cases are stated to occur between the ages of 15 and 25. In the Nile Expeditionary Force we had a population largely composed of those ages most liable everywhere to enteric fever. From an examination of a series of extracts of the admission and discharge books of various hospitals, furnished from time to time for a special purpose, certain particulars have been gathered concerning 528 of the cases of enteric fever recorded. The results of the analysis of these extracts are given in Tables I. and II. From Table I. it will be seen that of the 528 cases, 378, or 71·59 per cent., occurred between the ages of 20 and 24; while 115, or 21·78 per cent., occurred in men between 25 and 29. In Table II. it is noted that 138, or 26·13 per cent., were under three years service; while 107, or 20·26 per cent., had served less than four years.

TABLE I.—Showing ages of 528 men attacked with enteric fever while serving with the Nile Expeditionary Force.

Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Total.
15	378	115	12	7	1	528

TABLE II.—Showing periods of service of 528 men attacked with enteric fever while serving with the Nile Expeditionary Force.

Less than.									Above 9 years.	Total.
1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.	8 years.	9 years.		
4	56	138	107	83	56	30	19	7	28	528

Overwork.—The existence of this factor was undeniable, the duties of the troops having been most arduous and harassing.

Mental depression and debility.—These are inseparable from all campaigns, and doubtless contributed their share of influence as predisposing agents.

Introduction of the specific poison through the medium of air from fæcal emanations.—As a rule, medical officers in their sanitary remarks have reported favourably on the condition of their respective camping grounds. Some, however, have remarked otherwise, the most notable exception being that of Wady Halfa. At this station enteric fever was rife, no less than 178 admissions and 47 deaths being recorded. Some of these cases were however contracted elsewhere, and not a few of the deaths registered occurred among men transferred from other hospitals.

The Senior Medical Officer, Wady Halfa, repeatedly brought to notice the insanitary condition of the vicinity of the camp. In November 1884 he wrote, “sanitary condition of this station cannot be considered good. Camp ground “not clean.” Again, in December of same year, “sanitary condition of station “unsatisfactory.” Again, in January 1885, “sanitary condition of camp improved, “but Egyptian soldiers and others constantly defecate in the open, although “latrines are provided for them.” Again, in February 1885, “the sanitary “condition of the camp ground is bad. The camps themselves are clean, but the “ground is very foul in consequence of the Egyptians defecating all over the “place.” From these remarks we appear justified in assigning a place to foul camping grounds as a possible factor in the production of this disease in some instances.

Through the medium of water.—From the reports of medical officers the water supply, except in the Bayuda desert, was drawn exclusively from the Nile. It is generally stated to have been of good quality, and to have been carefully filtered before use. In December 1884 the Senior Medical Officer at Assouan reported, “Water supply not good, as we are about 300 yards below fort “occupied by 200 Bashi-Bazouks and numerous women and children. Fore-“shore of river in front of fort in a very insanitary condition.”

Through the medium of food, fruit, and particularly of milk.—The introduction of the specific poison through these channels was possible. Fruit and vegetable supplies issued to the troops were procured from natives, in whose houses they may have been stored for days. If disease existed among them contamination of these supplies might readily occur. As to the milk supply, its source was twofold, viz., from goats and preserved in tins. The goats were not milked at camp or hospital, the milk being brought by natives from their houses in gourds and other utensils; the liability to contamination was therefore great. On active service the stringent conditions observed in times of peace in regard to milk supplies cannot be exacted. The article had to be procured from the natives on their own conditions as well as at their own price, for, owing to the great difficulties connected with transport, the supplies of preserved milk had to be husbanded with the greatest care.

From soiled clothing or contact with the sick and their evacuations.—This is unlikely to have been a source of infection, except in the case of medical officers and orderlies in attendance on the sick.

From contact with natives suffering from the disease.—Information is not obtainable as to the prevalence or otherwise of enteric fever among the Arabs of the Soudan. The main features of the disease as met with in the Soudan appear to have been similar to those noted in England and elsewhere. Subjoined are some of the *post-mortem* notes recorded in fatal cases:—"Peyer's "patches ulcerated; lower part of ileum and beginning of cæcum in a semi-gangrenous state." "Ulceration of Peyer's patches; a large quantity of blood found in ileum." "Ulceration of Peyer's patches; lower part of small in-"testine inflamed and softened." "Mesenteric glands greatly enlarged; "large intestine semi-gangrenous in parts; Peyer's patches thickened, and "in many places ulcerated." "Congestion of lungs; friable spleen; thick-"ening and ulceration of Peyer's patches." "Small intestines congested and "studded with numerous characteristic ulcers." "Numerous deep ulcers in "lower part of small intestine; mesenteric glands enlarged." "Intestines "congested; signs of general peritonitis; a quantity of pus found in abdomen; "ulceration of Peyer's patches, and perforation of same at one point." "Extensive peritonitis; ulceration of Peyer's patches, with perforation one "inch from cæcal valve." "Extensive disease of intestines and perforation "of ileum 10 inches from cæcal valve." "Lower part of ileum full of enteric "ulcers, one of them having perforated." "All the intestines found adherent "to the abdominal wall; several ulcers had perforated the colon; abdominal "cavity found full of fæces."

To what cause or causes can we attribute the high ratio of mortality in this disease? Several circumstances appear to have combined to produce it.

1st. As already stated, the death ratio is, no doubt, calculated on a smaller number of cases than were actually treated. All the cases of enteric fever so returned were presumably undoubted cases of that disease, but many of the less severe cases were registered and treated under the various headings of simple continued fever, febricula, diarrhœa, &c.

2nd. The unfavourable conditions for treatment under which troops in the field are necessarily placed. However much authorities may differ as to the therapeutic treatment of this disease, all are agreed on the necessity for absolute rest in bed from the commencement of the attack. In the Soudan both officers and men were animated by a keen desire to keep abreast of their comrades, and many avoided reporting sick in the early stage when treatment was most likely to prove beneficial. Others, again, were unable to lay up although seriously ill; they stuck to their work as long as they could, and were frequently in a critical state when first seen.

3rd. Owing to military reasons it often became necessary to move men whose chances of recovery would have been greatly increased by being left alone. In the desert marches, men delirious with enteric fever had to be moved with the others, and an increased death-rate necessarily followed.

4th. As in India, so in the Soudan, the death-rate was greatly increased by nervous exhaustion due to the heat-conditions surrounding the patient. This was strikingly illustrated in the case of an officer of the King's Royal Rifles, of whom it is recorded that the temperature of the hut in which he was treated reached 112° F. A medical officer, who accompanied a convoy of sick and wounded across the desert in February 1885, remarks, "The first and second "days of the march were days of intense heat. On those two days we lost "seven men. They were all cases of enteric fever, but it was not the enteric "disease that killed them, it was the heat."

3. *Simple Continued Fever* contributed 1,021 admissions, 6 deaths, and 36 invalids, or ratios of 94·79, ·56, and 3·34 respectively. It was very prevalent among officers and men of the Cameron Highlanders at Korosko in June 1885. In the third week of that month, 5 officers and 43 non-commissioned officers and men were admitted. The attacks were due to solar exposure on three or four days when there was an absence of wind and consequent stagnation of the air. In addition to the cases admitted many men were detained for the day. The average duration of the cases was four days, but the debility which followed generally prevented the men from resuming work for two days more. None of these cases were severe, and all yielded readily to treatment. No autopsy was made in any of the fatal cases recorded elsewhere nor was their history such as to call for special remark.

4. *Febricula* caused 614 admissions and 4 invalids. The admission ratio equals 57·, the invaliding ratio ·37. The attacks were attributable in most instances to heat causes.

Paroxysmal Fevers caused 61 admissions, but no deaths. The admission ratio equals 5·7. Of the admissions, 49 were due to ague and 12 to remittent fever. Five men were invalided with ague, giving a ratio of ·47.

Influenza caused a solitary admission.

Erysipelas caused 10 admissions, but no deaths or invaliding. The admission ratio equals ·93. None of the cases were of a serious nature.

Rheumatic Affections caused 160 admissions and 10 invalids, or ratios of 14·9 and ·93 respectively. Of the admissions, 51 were due to acute, 51 to chronic, 56 to muscular rheumatism, and 2 to gout. Of the invalids, 8 suffered from chronic and 2 from muscular rheumatism.

Primary Syphilis caused 429 admissions, equal to a ratio of 39·8. There was no invaliding. The comparative freedom from this disease was partly due to absence of facilities for intercourse and drunkenness, and partly to careful inspection of the troops prior to their proceeding up the Nile. A slight prevalence of the disease was noted at Assouan in March 1885. It was found to have been imported by men of a regiment recently arrived from Alexandria.

Secondary Syphilis.—164 admissions and 8 invalids are returned under this head, giving ratios of 15·22 and ·74 respectively. These cases call for no remark.

Tubercular Diseases caused 21 admissions, 4 deaths, and 7 invalids, the ratios being 1·94, ·37, and ·65 respectively. Of the admissions, 16 were due to phthisis pulmonalis, 4 to tubercular hæmoptysis, and 1 to scrofula. All of the deaths were due to phthisis. Of the cases invalided 6 were due to phthisis pulmonalis and 1 to scrofula.

Purpura caused 3 admissions, but no deaths or invaliding. The admission ratio equals ·27. None of these cases were of a severe nature.

Scurvy.—From beginning to end of the campaign only 5 cases of this disease were admitted, giving a ratio of ·46. There were 2 invalids, but no deaths. None of the cases were of a severe character. A slight scorbutic taint was observed among some of the men at Kurot and Abu-Fatmeh, and was promptly met by an increase in the lime juice ration and the issue of compressed vegetables in addition to the ordinary vegetable supplies.

Anæmia.—Only 1 admission is recorded under this head. No particulars are given. The man was ultimately invalided.

II. Local Diseases.—Diseases of the *Nervous System* contribute 143 admissions, 15 deaths, and 22 invalids, equal to ratios of 13·3, 1·39, and 2·04 respectively. *Sunstroke* caused 64 admissions, 13 deaths, and 9 invalids, or ratios of 5·94, 1·20, and ·83. Many of the cases recorded appear to have been simply heat fevers due to solar exposure. Considering the intense heat to which the troops were exposed the number of admissions is small. Physical fatigue, exhaustion, and at times deficiency of water were all present as powerful predisposing causes, but these factors were more than counterbalanced by the healthy out-door life led by the men, the extreme dryness and purity of the desert air, but above all by the absence of intoxicating liquors. It is noteworthy that at Korosko in June 1885, when cases of heat fever were very prevalent, not a single case of sunstroke or heat apoplexy was recorded. *Paralysis* caused 5 admissions, 1 death, and 1 invalid. In the fatal case the paralytic affection was the sequel of a severe attack of enteric fever. Dry gangrene of the lower extremities set in and ultimately proved fatal. *Epilepsy* caused 12 admissions, but no deaths. 5 men were invalided. The admission and invaliding ratios were 1·11 and ·46 respectively. Seven men were admitted under the head of epileptic vertigo, of whom none died or were invalided. *Neuralgia* contributed 36 admissions, but no deaths or invalids. The admission ratio equals 3·34. Sciatica caused 2 admissions and pleurodynia 3.

Mania.—2 admissions are registered under this heading. No cause for the attacks is assigned. There were no invalids. The death recorded from acute mania occurred in a patient on the line of march, who suffered in addition from Bright's disease. *Dementia* contributed 7 admissions and 4 invalids. *Melancholia,* 4 admissions and 3 invalids. A case of *hysteria* is registered, of which unusual disease in men no particulars are given.

Diseases of the Eye caused 511 admissions and 7 invalids, or ratios of 47·44 and ·65 respectively. 486 of the admissions were due to conjunctivitis and only 1 to purulent ophthalmia. The invaliding causes were conjunctivitis 5, ulcer of cornea 1, and rheumatic iritis 1. The cases of conjunctivitis were mainly due to irritation from particles of fine sand blown through the camp during dust storms.

Diseases of the Ear caused 41 admissions, of which 24 were due to inflammation of external meatus, 8 to deafness, 5 to abscess, and 1 to sebaceous cyst. 3 men were invalided. The admission and invaliding ratios were 3·80 and ·28 respectively.

Diseases of the Circulatory System caused 50 admissions and 1 death, or ratios of 4·64 and ·09 respectively. 31 of the admissions were due to palpitation, 11 to valvular disease of heart, and 6 to varicose veins. The fatal case recorded was due to fatty degeneration of heart. There were 19 invalids, equal to a ratio of 1·77. The invaliding causes were valve disease of heart 9, palpitation 9, and varicose veins 1.

Diseases of the Absorbent Glands caused 45 admissions and 1 invalid. The admission ratio equals 4·2. Of the admissions 37 were due to inflammation and 8 to suppuration of glands. The solitary case invalided was one of glandular inflammation.

Diseases of the Respiratory System caused 196 admissions, 9 deaths, and 8 invalids, the ratios being 18·2, ·83, and ·74 respectively. The chief admission causes were bronchitis, bronchial catarrh, pneumonia, and pleurisy. All of the deaths were due to pneumonia; bronchitis was the chief invaliding cause.

Diseases of the Digestive System caused 2,402 admissions, 72 deaths, and 165 invalids, or ratios of 223, 6·68, and 15·32 respectively. Dysentery and diarrhœa were the chief admission causes, the former contributing 923 and the latter 911 admissions. Of the 72 deaths, 60 were due to dysentery and 5 to abscess of liver. Of 165 invalids, 146 suffered from dysentery and diarrhœa. Much of the latter disease was attributed to chills, errors in diet, and the use of impure water. Towards the end of the campaign a too free indulgence in fruits and tinned provisions by the men retiring down the river was a fertile source of bowel affections. One death from typhlitis and one from jaundice are recorded. The post-mortem appearances observed in cases of dysentery were characteristic of that disease.

Diseases of the Urinary System caused 293 admissions, but no deaths or invaliding. The admission ratio equals 27·20. Gonorrhœa was the chief admission cause.

Diseases of the Generative System caused 60 admissions, but no invaliding. The chief admission cause was orchitis. The admission ratio equals 5·6.

Diseases of Locomotion.—The admissions numbered 43 and the invalids 3, giving ratios of 4·0 and ·28 respectively. The chief admission cause was synovitis. The invaliding causes were necrosis, synovitis, and contraction of tendons.

Diseases of the Cellular Tissue caused 387 admissions and 8 invalids. The admission ratio equals 35·92. Of the admissions, 53 were due to inflammation and 334 to abscess. Many of the latter were caused by the severe manual labour performed in towing and rowing the boats on the river. Abscess was the cause of disability in all cases invalided. The invaliding ratio was ·74.

Disease of the Cutaneous System.—367 admissions are recorded, giving a ratio of 34·1. The chief admission causes were eczema, ulcer, boil, ingrown nail, and whitlow. Of 6 invalids, 3 were rendered unfit for duty by ulcers.

III. CONDITIONS, &c.—*General debility* caused 464 admissions and 170 invalids, the ratios being 43·1 and 15·78 respectively. These numbers are high, but in the majority of cases the debility was simply the sequel of other diseases, as fevers, &c.

IV. POISONS.—This class gave 10 admissions and 1 death, or ratios of ·92 and ·09 respectively. The small number of admissions was due to the absence of liquor. Of the admissions 4 are returned as alcoholic poisoning and 6 as delirium tremens. The death recorded was due to alcoholic poisoning.

V. INJURIES.—General and local injuries combined caused 384 admissions, 39 deaths, and 8 invalids, or ratios of 35·7, 3·63, and ·74 respectively. The chief admission causes were wounds, sprains, and contusions. Of the deaths recorded 37 were due to drowning, 1 to rupture of spleen from falling over a box, and 1 to suicide. In the last-named case deceased shot himself through the head with a revolver while labouring under temporary insanity.

Wounds in action caused 241 admissions and 126 deaths. Of the latter 84 occurred on the field of battle and 42 in hospital. These figures differ somewhat from those telegraphed to England from the fields of action; the telegraphic reports, in some instances, showing as "killed in action" men who, although mortally wounded, lived sufficiently long to be admitted to hospital. The admission ratio equals 22·4, and the death ratio 11·70. Seventy-four men were invalided, giving a ratio of 6·87. There were in all eight engagements with the enemy, the first occurring on 17th January 1885 and the last on 17th February of the same year. The following is an analysis of admissions for wounds and injuries received in action during the campaign.

Wounds of head caused 22 admissions, viz., gunshot wounds, 20; spear wounds, 2. Five of the former and one of the latter proved fatal. No particulars are given concerning these injuries nor are any operations recorded in connexion with them. *Wounds of face* caused 10 admissions, viz., 9 from gunshot and 1 from spear; all recovered. Private ———, Mounted Infantry, was shot in the mouth, the alveolar process and two teeth being fractured by the bullet. The latter was extracted from beneath the tongue. *Wounds of neck* caused 10 admissions, 8 being from gunshot and 2 from spear; 2 of the former died. No particulars are given. *Wounds of chest* caused 12 admissions, viz., gunshot wounds, 10; spear wounds 2. Seven of the former and 2 of the latter proved fatal. The following is the only case of which particulars are given:—Private ———, Camel Corps, wounded in chest on 19th January 1885. On 9th February symptoms of empyema detected; wound examined, bullet found to have entered at internal border of deltoid, penetrating pectoral muscle as it crosses axilla to its insertion into humerus and passed in a direction downwards into chest, fracturing fifth and sixth ribs in its progress. A probe passed downwards, backwards, and inwards for nearly 6 inches into pleural cavity. A dependent opening made between sixth and seventh ribs, and a quantity of pus evacuated. Bullet not found and not searched for. A large drainage tube inserted and wound dressed antiseptically. Death resulted on 14th May 1885.

Wounds of the abdomen caused 4 admissions, 1 being from gunshot and 3 from spear. All died. No particulars given. *Wounds of back and spine* caused 19 admission, of which 8 were from gunshot and 11 from spear. One of the former and 2 of the latter ended fatally. The only case in which particulars are given is that of Private ——, Royal Marine Light Infantry, wounded on 17th January 1885. Death resulted on 12th day from exhaustion; the bullet, which was extracted, having injured the spine, and caused paralysis of rectum, bladder, and lower limbs.

Wounds of perinæum and genital and urinary organs not being wounds of the peritoneum. Admissions 4; all caused by gunshot; of these 1 died. *Wounds of upper extremities* caused 66 admissions, 57 being from gunshot and 9 from spear; 3 of the former died. The following details are recorded under this section. Private ——, Royal Sussex Regiment, wounded in February 1885; bullet entered ulnar side of soft mass of muscles on palmar aspect of metacarpal bone of right little finger; wound resembled a clean cut; a probe could not be passed; penetration of bullet not suspected; three days after receipt of injury symptoms pointed to lodgment of a foreign body; careful examination made; bullet detected, deeply imbedded among tendons in centre of palm of hand and removed with some difficulty. *Wounds of lower extremities* caused 88 admissions, 80 being from gunshot and 8 from spear. Twelve of these died, viz., 11 from gunshot and 1 from spear. The following is the only case in which particulars are given:—Private ——, Camel Corps, bullet entered outside of thigh 4 inches below crest of ilium, passing in front of femur and lodging in groin; primary hæmorrhage severe; arrested by pressure. On 3rd day of injury bullet removed by incision from beneath external abdominal ring; drainage tube inserted; wound treated antiseptically. On 5th day after operation secondary hæmorrhage set in while on journey across the desert, and although immediate assistance was rendered he died while preparations were being made to tie the femoral artery. *Wounds with direct penetration or perforation of the large joints* caused 6 admissions, all from gunshot wounds. Of these 2 died. The joints injured were—knee 1, shoulder 1, wrist 1, ankle 1; remaining 2 not specified. Of injuries under this section the following particulars are given:—Private ——, Mounted Infantry, admitted with penetrating wound of right knee joint; bullet extracted from between condyles of femur; wound dressed antiseptically; extensive suppuration of joint occurred on 19th day after receipt of injury, necessitating amputation of the thigh. Made a good recovery, and was invalided to England. Sergeant ——, Camel Corps, had excision of shoulder performed for gunshot injury of the joint, and Private ——, same corps, had the wrist excised for similar injury. Both cases ended fatally.

Remarks on the nature of the wounds received in action.—They varied in character, being chiefly inflicted by rifle shot and spear, although daggers, knives, swords, and axes were also used by the enemy. Many of the Mahdi's troops were armed with the Remmington rifle. At Abu Klea, on 17th January 1885, the proportion of spear wounds was large, over a half of the total injuries received being caused by that weapon. In all other actions gunshot wounds prevailed. At Abu Klea, on 17th January, the square was broken and severe hand to hand fighting ensued, many of the wounded who were in cacolets and litters when this mishap occurred being speared as they lay helpless. Of spear wounds, Surgeon Dick, who treated a large proportion of the wounded in the above-named action, remarks, "The soft parts were usually " horribly lacerated and deeply incised. As a rule the bony structures escaped. " The main vessels in all the cases that came into hospital escaped injury; no " case requiring ligature occurred." Some of the wounded had literally to be covered with lint and bandages from head to foot, so numerous were their wounds, some had received no less than 13 large cuts and many of the wounded took fully two hours to dress.

Treatment and its results.—The following remarks are extracted from the reports submitted by a few medical officers :* " In no case was an endeavour made " to save the limb when the femur, humerus, or tibia was fractured, on ac- " count of the extensive smashing resulting in every case" (Surgeon Gallway). " Conservative surgery was practised whenever practicable. At Kirbekan " the wounded were dressed where they fell. In every case a first field dress- " ing was used, it answered extremely well. All wounds were dressed " antiseptically" (Surgeon-Major Flood). "A very large proportion of my " cases were spear wounds, which, from their number and wide distribution " over the body, did not admit of thorough antisepticism. They were dressed " with carbolic solution alternated from time to time with solution of boracic " acid; they required frequent dressing, but kept very sweet. All cases of " simple gunshot wounds were dressed antiseptically without modification, " dressings not being changed for days. One case of compound comminuted " fracture of the thigh in a native (Aden, camel driver) did remarkably well " under the modified antisepticism. Until antiseptics are rendered more " simple and easy of application it is impossible to do more than a modified " dressing in the field, more especially as cases must pass from surgeon to " surgeon as they go down a lengthened line of communication. It is frequently impossible to attempt antiseptics on men with a large number of spear wounds" (Surgeon Dick). In a case of amputation of the upper arm, performed by Surgeon Dick, for extensive compound comminuted fracture, the result of gunshot injury, the stump was kept aseptic throughout. It was dressed in all about six times. At the end of 14 days the patient was assisting in the work of the hospital, the stump being all but completely healed.

Surgeon Briggs remarks, "I believe dry dressings will be found very service- " able in military practice if of the right material, antiseptic wood wool, &c.; " they must be absorbent. One strong point in their favour is their warmth " and the protection they afford against temperature variation." In some of the amputation cases the flaps sloughed. Annexed are the opinions expressed by different operators on this important point. Surgeon Gallway writes, "This was due in my opinion to the employment of Esmarch's bandage " and to the intense cold at night." At the period to which he refers the temperature variation was considerable, the thermometer registering 49° Fahr. at 5 a.m. and 91° Fahr. in the shade at noon. "Wet dressings were " always employed in dressing the stump. In future I would prefer dry " dressings." Surgeon Dick observes "sloughing did not occur in any of " my cases. I believe that this was principally due to the fact that the flaps " were composed of muscle as well as skin, thus securing a better vascular " support to the whole of the flap." Surgeon Briggs writes, "I am of opinion

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* Other medical officers than those mentioned not only treated the wounded but operated as well; unfortunately they have omitted to record their experiences.

"that the sloughing was due not to one but to many causes." Among these he enumerates severe collapse from the injury, great temperature variation, delay in operating owing to frequent movement of the wounded from one place to another, and finally the peculiar conditions under which the soldier on active service is placed in regard to want of rest, arduous work, and subsistence to a great extent on tinned meats. In conclusion he remarks, "My amputations were invariably made by skin flaps and circular incision through the muscles. On a future occasion I should make flaps of skin and muscle." Twelve Arabs wounded at Abu Klea were treated by Surgeon Dick. The majority of these were severe cases; 3 died, and 1 had a Chopart's operation performed and recovered rapidly. The remainder, chiefly cases of gunshot compound fractures, would have been operated upon had the patients consented. They were treated by ordinary methods and with good results. They were all dieted in hospital; seemed grateful for the treatment they received and were transferred to their own people on the evacuation of the desert hospitals.

Operations.—43 operations were performed, varying in severity from major amputations to extraction of bullets and other foreign bodies. The nature of these operations is given in the accompanying table. The preponderance of secondary over primary operations was mainly due to military exigencies, necessitating frequent movement of the wounded.

Amputations.—The flap method was employed by all operators, some selecting flaps composed both of skin and muscle, while others preferred the method of skin flaps with circular division of muscles. All operations were performed under chloroform, and antiseptically. In some cases the antiseptic arrangements were complete, in others the spray was omitted. Hæmorrhage during operation was controlled by Esmarch's bandage, and bleeding vessels secured by catgut ligature. The subsequent dressings were thoroughly antiseptic, and drainage of the wound was carefully attended to. Analysis of operations performed: 1. *Amputations of arm,* 3 in number, viz., primary 2 and secondary 1; all recovered. The following particulars of these cases are recorded: Corporal ——, Mounted Infantry (primary), compound comminuted fracture left upper arm from gunshot wound; limb removed by skin and muscle flaps; wound almost healed in 14 days. Private ——, 1st Royal Irish (primary), compound comminuted fracture of humerus involving elbow joint; limb removed by skin flaps and circular division of muscle; recovered. Private ——, Camel Corps (secondary), gunshot wound with comminution of elbow joint and erysipelatous inflammation of the soft tissues; operation by skin flaps and circular division of muscle; recovered; *of forearm:* number of operations performed 1. This was a secondary operation for gunshot wound of wrist; operation performed by double flaps of skin and muscle; recovered; *of thigh:* number of operations 7, viz., primary 1 and secondary 6; of these 3 were fatal; *of leg:* number of operations 3, viz., 2 primary and 1 secondary, of these 1 proved fatal and 2 recovered; *of ankle joint,* number of operations 3, all secondary; 1 was necessitated by gunshot injury of tarsus, the second by gunshot injury of the joint, and the third was a second operation on the same individual necessitated by secondary hæmorrhage and protruding bone; all recovered.

Excisions.—Number of operations performed 2. Both were secondary and terminated fatally.

Excision of shoulder joint.—For gunshot wound of right shoulder. Operation necessitated by compound comminuted fracture of head of humerus, and performed by a single straight incision. Result, fatal.

Excision of wrist joint.—Operation necessitated by severe gunshot wound of wrist. Bullet had passed though bones of carpus from dorsal to palmar aspect comminuting the carpal bones. These, together with head of middle metacarpal bone, were removed through the enlarged wound of entrance on dorsum of the wrist. Patient died from tetanus.

Extraction of bullets and other foreign bodies.—Number of operations 21. Of these 1 was primary and 20 secondary. No deaths were due to these operations.

Ligature of arteries.—One case of ligature of the radial is recorded. The circumstances necessitating the operation are not stated.

Other operations.—Two operations are recorded under this head. Both were secondary. One was a case of tapping of the chest for empyema. The nature of the other is not recorded.

Transport of the sick and wounded.—The movements of the sick and wounded were, for military reasons, frequent, and the arrangements adopted for their transport appear to have been the best available under the circumstances. The purity of the desert air aided greatly in procuring the rapid healing of wounds, and the patients' health improved quickly on removal from the camping grounds in the desert, which, in spite of all precautions, rapidly fouled from accumulation of large parties of men in a circumscribed space. The transport of the sick and wounded across the desert was effected by means of litters and cacolets fastened on camels, and by stretchers carried by hand. The latter were reserved for the worst cases, the Soudanese soldiers being employed as bearers. Surgeon-Major Connolly remarks "The cacolets answered admirably, but the "litters did not come up to what was expected of them." The manner in which the sick and wounded were to be transported across the desert was decided beforehand by a committee of medical officers who fixed on the method best adapted to individual cases. The arrangements for their care and dieting are reported to have been excellent. The chief drawback to the comfort of the sick was the intense heat. On reaching the Nile the patients in some cases were transported entirely by water to Cairo; in others the river journey terminated at Assiout, the sick being conveyed by rail to Cairo or Alexandria according to their destination. Several railway carriages with attached kitchen and surgery waggon specially constructed at Cairo for the use of the sick were employed in this work, and added materially to the comfort of the patients.

Invaliding.—The amount of invaliding in connexion with the Nile Force Expedition has been large, amounting to 58·49 per mille of strength. The chief invaliding causes were fevers, bowel affections, general debility, and wounds in action.

HEALTH STATISTICS of COMMISSIONED OFFICERS of the Regular Forces serving with the Nile Expeditionary Force during 1884–85.

The average strength for the period was 600. 514 were admitted, 41 died, and 105 were invalided, giving ratios of 856·6, 68·33, and 175·0 respectively. Of the deaths, 25 were due to disease, and 1 to accident, while 11 officers were killed in action, and 3 died in hospital from their wounds. The death returned under "Cause unknown" is that of Lieut. ——, West Riding Regiment, who died in November 1884. The admissions, deaths, and invaliding in the various classes and orders of disease were as follows:—

GENERAL DISEASES.—The febrile group contributed 195 admissions, 17 deaths, and 3 invalids, or ratios of 325, 28·33, and 5·0 respectively. *Eruptive fevers* caused 3 admissions. All were due to small-pox. *Continued fevers* furnished 182 admissions, 16 deaths, and 2 invalids, or ratios of 303·4, 26·67, and 3·34 respectively. *Enteric fever* contributed 47 admissions, 15 deaths, and 1 invalid, or ratios of 78·4, 25·0, and 1·6 respectively. The per-centage of deaths to cases treated was 31·9. The influence of age in this disease is shown in Table I.

TABLE I.—Showing the ages of 47 commissioned officers attacked with enteric fever while serving with the Nile Expeditionary Force.

Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Total.
—	17	19	8	3	—	47

TABLE II.—Showing periods of service of 47 commissioned officers attacked with enteric fever while serving with the Nile Expeditionary Force.

Less than.									Above 9 years.	Total.
1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.	8 years.	9 years.		
7	7	4	2	8	3	4	2	—	10	47

Extracts of fatal cases of enteric fever recorded :—1. Captain ——, 1st Hampshire Regiment, admitted 4th February 1885, died 13th *idem*. Ailing with diarrhœa and fever for a considerable time prior to admission; temperature ranged from 101·6° to 104·8°; motions liquid; tenderness in right iliac region, restlessness and delirium. On 10th February became worse, motions passed involuntarily. On 12th became very low, and died the following day. 2. Surgeon ——, Medical Staff, admitted 7th March 1885; ailing for a few days previously. Temperature high, morning and evening, averaging 102·5° in the former and 104° in the latter. On morning of 13th felt better, and was able to read a book. In the afternoon, without apparent cause, took an unfavourable turn, diarrhœa set in, stools were passed involuntarily, breathing became laboured, and heart's action failed. Died at 10.30 p.m. 3. Colonel ——, Camel Corps, admitted 20th February 1885, with well-marked symptoms, which soon increased. By 8th March he was much better, and up to 20th remained free from fever. On latter date he proceeded down the river towards Cairo, but soon after became worse. Symptoms assumed a dysenteric character, and motions were passed involuntarily. On 6th April he suffered from severe abdominal pain, stools increased in frequency, weakness became more pronounced, and he sank exhausted on 8th April. 4. Major ——, Camel Corps, admitted 1st April 1885; ailing prior to admission. Nervous depression a prominent feature; was delirious and sleepless; abdominal symptoms developed later on. Died on 17th April. 5. Surgeon ——, Medical Staff, admitted 31st March 1885, died 18th April. Disease contracted on the desert march. Symptoms of enteric fever well marked. 6. Lieut. ——, 2nd Duke of Cornwall's Light Infantry, admitted 8th March; ailing for a week previously. Temperature ranged from 103° to 104·6° in evening, with slight morning remission. Was semi-comatose, and suffered much from nervous tremors. On 19th temperature normal; became conscious and collected. On 24th had a relapse. On 29th became much worse, and died at 11·45 p.m. the following day. 7. Lieut. ——, 2nd Royal West Kent Regiment, admitted 17th April 1885; ailing for three weeks before. Being the only officer of his company he would not lay up, but exposed himself all day to the sun while superintending the erection of huts for the troops. On admission was in a prostrate condition, eyes sunken, face drawn, pulse weak. Temperature 103·4°; stools characteristic. On 20th temperature increased, heart's action failed, fainting fits occurred, followed by collapse and low muttering delirium, ending in death at 11.10 p.m. 8. Lieut. ——, Camel Corps, admitted 13th May 1885, and died on 18th May. The symptoms in this case were characteristic, death being hastened by consolidation of the right lung. 9. Surgeon ——, Medical Staff, attacked on 5th May, died on 20th. The enteric symptoms in this case were not well marked. The history points to solar exposure as the more probable cause of death. The nervous symptoms were very pronounced throughout his illness. 10. Lieut. ——, Camel Corps, died 27th May 1885. Case severe from the beginning, but no details given. 11. Lieut. ——, 1st South Staffordshire Regiment, admitted 6th May 1885; ailing for five days previously. Temperature ranged from 101° in the morning to 105° in the evening; stools characteristic; delirium and restlessness almost constant; intervals of consciousness rare; tongue dry and brown; rose spots and iliac gurgling both present. On evening of 19th became comatose, and died soon after. 12. Major ——, King's Royal Rifles, attacked 21st March 1885. The symptoms in this case were well marked. Purpuric spots appeared on the lower extremities on 25th April, followed three days later by intestinal hæmorrhage, and death on 5th May. 13. Surgeon ——, Medical Staff, admitted 16th May 1885; ailing for a week previously. The characteristic eruption, diarrhœa, &c. were all present. On 3rd June his temperature was normal. On 6th June he was sent down the river, and died 11 days after admission at Abu-Fatmeh, apparently from a relapse.

Simple Continued Fever contributed 101 admissions, 1 death, and 1 invalid, or ratios of 168·33, 1·67, and 1·67 respectively. *Febricula* caused 34 admissions, the ratio being 56·66. These cases were chiefly due to heat causes. *Paroxysmal fevers* caused 8 admissions, 1 death, and 1 invalid, or ratios of 13·3, 1·67, and 1·67 respectively. Of the admissions, 3 were due to ague and 5 to remittent fever. The fatal case recorded was due to the latter disease. *Rheumatic affections* caused 9 admissions and 2 invalids, or ratios of 15·0 and 3·33 respectively. Of the admissions, 4 were due to acute, 3 to chronic, and 2 to muscular rheumatism. The invaliding cause was chronic rheumatism. *Secondary syphilis* caused 1 admission.

LOCAL DISEASES.—*Diseases of the nervous system* contributed 12 admissions, 2 deaths, and 4 invalids, equal to ratios of 20·0, 3·33 and 6·67 respectively. *Sunstroke* caused 5 admissions and 2 invalids, or ratios of 8·33 and 3·33 respectively. There were no deaths from this cause. *Neuralgia* contributed 4 admissions and 1 invalid. *White softening of the brain,* 1 admission and 1 death. Deceased was a vegetarian and water drinker, and was much reduced in stamina. *Meningitis* caused 2 admissions, 1 death, and 1 invalid. The fatal case occurred in a convalescent from enteric fever. *Diseases of the eye* caused 4 admissions, *diseases of the ear* 3. The former were due to conjunctivitis, the latter to inflammation of the external meatus. *Diseases of the circulatory system* caused 1 admission. It was due to varicose veins and necessitated invaliding. *Diseases of the absorbent glands* and *diseases of the respiratory system* each caused 2 admissions, the former being due to inflammation, the latter to bronchitis and pneumonia. *Diseases of the digestive system* caused 126 admissions, 6 deaths, and 11 invalids, or ratios of 210·0, 10·0, and 18·33 respectively. The chief admission causes were dysentery and diarrhœa. The death causes were dysentery 3, abscess of liver 2, and diarrhœa 1. The invaliding causes were dysentery 4, diarrhœa 3, polypus of intestine, hepatitis, jaundice, and peritonitis, of each 1. The only case calling for remark is that of Major ——, Camel Corps, who died on the Nile on 18th June 1885 from diarrhœa of 27 hours duration. There was marked prostration for eight hours, and a certain amount of collapse before death, but no suppression of urine. The attack was attributed to eating preserved mushrooms at dinner the previous evening. *Diseases of the urinary and generative systems* each caused 2 admissions and 1 invalid. In the former the admission causes were cystitis and Bright's disease; the invaliding cause being Bright's disease; while in the latter the admission causes were varicocele and orchitis, the invaliding cause being varicocele. *Diseases of locomotion* caused 3 admissions and 2 invalids; all were due to synovitis. *Diseases of the cellular tissue* caused 8 admissions, of which 1 was due to inflammation and 7 to abscess. *Diseases of the cutaneous system* caused 14 admissions and 2 invalids, one half of the admissions being due to ulcer. The invaliding cause in both instances was ulcer.

CONDITIONS.—*General Debility* caused 96 admissions and 63 invalids. The large proportion of admissions and invalids under this head was due to convalescents from fevers and other diseases having the nomenclature changed prior to being invalided. *Injuries.*—General and local, caused 8 admissions and 1 death. Of the admissions, wounds caused 3, and burns, contusion, fracture, sprains, and blistered feet, each 1. The death recorded was due to drowning caused by the swamping of a boat during a gale of wind.

Wounds in action caused 26 admissions and 14 deaths. Of the latter, 11 officers were killed on the field of battle and 3 died in hospital. The admission ratio equals 43·3 and the death ratio 23·33., 15 officers were invalided, giving a ratio of 25·00.

Analysis of wounds and injuries received in action.—*Wounds of head* caused 2 admissions; both were gunshot contusions. Invaliding was necessary in both instances. *Wounds of face* caused 1 admission from gunshot injury. It was of a mild nature. *Wounds of chest* caused 3 admissions, all were due to gunshot. In one the injury was slight; in the remaining two severe, necessitating invaliding. The only case recorded in this section is that of Captain ——, Mounted Infantry, wounded at Abu Klea on 16th February 1885. Bullet perforated a cartridge in his bandoleer and entered front of chest between second and third ribs, passing in a direction downwards and backwards, and lodging. Severe external hæmorrhage, collapse and dyspnœa followed, and air passed out freely through the wound. Bleeding was restrained with difficulty. The application of an antiseptic pad and firm bandage arrested hæmorrhage, and on tenth day the wound was closed, only a small superficial ulcer remaining. By 8th March was able to sit up, but slight cough, bloody expectoration, and fever continued. The whole of left lung along its posterior surface was consolidated, and chest movement greatly impaired. The patient did well, and was finally invalided. *Wounds of the abdomen.*—One admission with a fatal termination is recorded. Injury due to gunshot wound. The following particulars are given:—Major-General ——

wounded at action of El Gubat on 19th January 1885. Bullet struck anterior superior spine of ilium, breaking off a portion and penetrated abdomen, no signs of abdominal mischief supervening. Detached piece of bone removed. Bullet appeared to have passed across abdomen into rectus muscle. Operative interference seemed uncalled for. From 3rd to 12th February there was high fever (101° to 103°), and dry brown tongue, but no pain or tenderness of the abdomen. At times there was considerable tympanitis with gurgling in right iliac fossa. On 9th February venous hæmorrhage set in from the wound; source doubtful, easily controlled. On 11th February was slightly improved. Two days later he was transferred to a sick convoy proceeding to Korti, and died at Gakdul on 16th February. The following appearances were disclosed on examination after death :—" Suppurating wound " over left anterior superior spine of ilium; a portion of the latter had been " broken off. From this point a sinus extended downwards and inwards for " about five inches on anterior aspect of thigh; nothing found therein. A " canal, evidently the course of the bullet, proceeded backwards through " fibres of iliacus muscle. The bullet had impinged against and fractured " the back part of the ilium near its juncture with the sacrum. This fracture " was extensive and starred. The bullet was found lodging at the upper part " of the sacro-iliac synchondrosis. The peritoneum was uninjured. Death " evidently resulted from exhaustion." *Wounds of back and spine* caused 1 admission. This injury, a severe uncomplicated flesh wound of the back, necessitated invaliding. *Wounds of the upper extremities* caused 9 admissions. Of these 8 were gunshot wounds and 1 a spear injury. The latter was slight. Of gunshot injuries, 2 were slight and 6 severe. Three recovered and returned to duty and 5 were invalided.—*Wounds of the lower extremities* caused 9 admissions. Eight were gunshot injuries and 1 a knife wound. Two subsequently died from gunshot and knife wound respectively. Three of the gunshot wounds were slight and 5 severe. One was discharged to duty and 6 were invalided. The following details are recorded under this section :— Lieutenant ——, Royal Artillery, wounded at Abu Klea on 17th January, receiving a deep incised knife wound on inner side of right thigh. Bone uninjured. Did well until 20th January when pyæmic symptoms set in and proved fatal. Captain ——, 16th Lancers, wounded at Abu Klea on 17th January. Bullet penetrated right thigh at junction of upper and middle thirds, taking a direction upwards, backwards, and inwards causing a comminuted fracture of head and upper fifth of femur. Free incision made under chloroform; bullet not found. Patient suffered severely from shock, never rallied, and died on 5th day of the injury.

Analysis of operations performed.—Amputation of fingers, 2; both performed on same individual.—*Amputations of thigh* 3. Performed on Major —— and Captain —— of the Camel Corps, the former undergoing one and the latter two operations. Both recovered. The following details of these cases are given: Major —— wounded at El Gubat on 19th January; gunshot wound of right thigh with extensive comminuted fracture of femur and contusion of tissues in neighbourhood of wound. Amputation performed through upper middle third of thigh. Inner flap sloughed extensively, leaving about 3 inches of bone protruding. Patient refused further operative measures and was invalided to England, where a second operation was successfully performed. Captain —— wounded at El Gubat on 19th January, gunshot wound of right thigh with great comminution of femur extending into knee-joint; thigh amputated at upper middle third on 21st January. Flaps ultimately sloughed, necessitating a second and successful operation at Korti on 27th February. Made an excellent recovery.

Excisions.—One operation performed on Captain —— 1st South Staffordshire Regiment for ununited gunshot fracture of radius and ulna. Operation successful. In a fortnight after, union had commenced, and the limb promised to be a useful one with about one and a half inches of shortening. Operation performed by radial and ulnar longitudinal incisions.

Extraction of bullets and other foreign bodies.—Two operations are recorded —one fatal.—The fatal case is that of Captain ——, 16th Lancers, already referred to, in whom an unsuccessful attempt to reach the bullet was made. The fatal termination of the case was not due to the operation.

In addition to the regular forces, several men of the Royal Navy, Canadian voyageurs, Kroomen, and others were attached to the Expedition and received treatment in hospital. Their estimated strength was 2,452, of whom 671 were admitted, 71 died, and 16 were invalided, giving ratios of 273·65, 28·95, and 6·52 respectively per mille of strength. 60 deaths were due to disease and 3 to accident; 6 men were killed in action and 2 died subsequently from their wounds. *Eruptive fevers* caused 3 admissions and 2 deaths. *Enteric fever*, 33 admissions and 13 deaths. Simple continued fever, 37 admissions and 1 death. Febricula, 21 admissions, and paroxysmal fevers, 4. Two admissions were due to erysipelas, 41 to rheumatic and 14 to syphilitic affections. Scurvy caused 12 admissions, all in Kroomen. Of diseases of the nervous system, 3 admissions were due to epilepsy and 1 to hypochondriasis, melancholia, dementia, and sunstroke respectively. Epilepsy caused 1 death, and dementia 1 invalid; 33 admissions were due to diseases of the eye, and 1 to diseases of the ear, conjunctivitis being the chief admission cause in the former class. Disease of the circulatory system caused 1 admission and 2 deaths; inflammation of glands 5 admissions. 37 admissions and 11 deaths are recorded under the respiratory system, the ratios being 15·08 and 4·48 respectively. Bronchitis was the chief admission cause. Bronchitis and pneumonia each caused 5 deaths; pleurisy, 1. Digestive diseases caused 238 admissions, 29 deaths, and 2 invalids, or ratios of 97·06, 11·82, and ·81 respectively. Diarrhœa and dysentery were the chief admission causes, while the former caused 5 deaths and the latter 22 deaths and 2 invalids. Diseases of the urinary system caused 4 admissions; diseases of the generative system 6. No deaths occurred in either class. 6 admissions were due to synovitis, 10 to inflammation, and 18 to abscess of the cellular tissue. 32 admissions are registered under cutaneous system, the chief cause being ulcer. General debility caused 34 admissions, 1 death, and 6 invalids. The fatal case occurred in a Krooman. Eight admissions were due to contusions, 4 to wounds, 3 to scalds, 2 to fracture, 3 to sprain, and 1 to dislocation. Wounds in action caused 17 admissions, 7 being in men of Royal Navy, 9 in camel drivers and 1 in a soldier of the Egyptian army. Six men were killed in action. All of them belonged to the Navy. Several officers were attached to this non-regular force, their estimated strength being 73. Of these 24 were admitted, 4 died, and 7 were invalided, giving ratios of 328·76, 54·79, and 95·89 respectively. Of the death causes 1 was disease, 1 suicide, and 2 were deaths in action. Enteric fever caused 6 admissions, simple continued fever 4, and febricula 1. One death and 4 invalids were due to enteric fever. Erysipelas and sunstroke each caused 1 admission; dysentery 2 and diarrhœa 7. All recovered except 1 case of diarrhœa which was invalided. One suicide occurred from gunshot wound in a patient under treatment for fever. Two admissions were due to wounds in action. Both officers belonged to the Royal Navy. Both received gunshot wounds and were ultimately invalided.

CLASSIFIED RETURN of WOUNDS and INJURIES received in Action during the Period ending July 31, 1885.

Dates of Action	17 Jan. 1885.	19 Jan. 1885.	10 Feb. 1885.	13, 16, and 17 Feb. 1885.
Places of Action	Abu Klea	Metammeh and El Gubat.	Kirbekan	En route to and at Abu Klea.

Regions of the Body Wounded or Injured.	Killed in Action.	Admissions with Wounds and Injuries.							Deaths in Hospital consequent on Wounds or Injuries received in Action.						
		Total Wounded or Injured.	Projectile or Weapon by which the Wounds or Injuries were inflicted.						Total Deaths from Wounds or Injuries.	Projectile or Weapon by which the Wounds or Injuries were inflicted.					
			Gun Shot or Shell.	Rifle, Pistol, or smaller Shot.	Explosion of Gunpowder.	Sword or Sabre.	Lance, Bayonet, Spear or Knife.	Other Injuries.		Gun Shot or Shell.	Rifle, Pistol, or smaller Shot.	Explosion of Gunpowder.	Knife.	Spear.	Other Injuries.
I. Commissioned Officers :—															
1. Wounds of the head - -	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—
2. Wounds of the face - -	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—
3. Wounds of the neck - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Wounds of the chest -	—	3	—	3	—	—	—	—	—	—	—	—	—	—	—
5. Wounds of the abdomen -	—	1	—	1	—	—	—	—	1	—	1	—	—	—	—
6. Wounds of the back and spine.	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—
7. Wounds of the perinæum and genital and urinary organs, not being wounds of the peritoneum.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Wounds of the upper extremities.	—	9	—	8	—	—	1	—	—	—	—	—	—	—	—
9. Wounds of the lower extremities.	—	9	—	8	—	—	1	—	2	—	1	—	1	—	—
10. Wounds with direct injury of the large arteries, not being cases of compound fracture.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. Wounds with direct penetration or perforation of the large joints.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. Wounds with direct injury of the large nerves, not being at the same time cases of compound fracture.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total - -	11	26	—	24	—	—	2	—	3	—	2	—	1	—	—
II. Warrant and Non-Commissioned Officers and Men :—															
1. Wounds of the head - -	—	22	—	20	—	—	2	—	6	—	5	—	—	1	—
2. Wounds of the face - -	—	10	—	9	—	—	1	—	—	—	—	—	—	—	—
3. Wounds of the neck - -	—	10	—	8	—	—	2	—	2	—	2	—	—	—	—
4. Wounds of the chest - -	—	12	—	10	—	—	2	—	9	—	7	—	—	2	—
5. Wounds of the abdomen -	—	4	—	1	—	—	3	—	4	—	1	—	—	3	—
6. Wounds of the back and spine.	—	19	—	8	—	—	11	—	3	—	1	—	—	2	—
7. Wounds of the perinæum and genital and urinary organs, not being wounds of the peritoneum.	—	4	—	4	—	—	—	—	1	—	1	—	—	—	—
8. Wounds of the upper extremities.	—	66	—	57	—	—	9	—	3	—	3	—	—	—	—
9. Wounds of the lower extremities.	—	88	—	80	—	—	8	—	12	—	11	—	—	1	—
10. Wounds with direct injury of the large arteries, not being cases of compound fracture.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. Wounds with direct penetration or perforation of the large joints.	—	6	—	6	—	—	—	—	2	—	2	—	—	—	—
12. Wounds with direct injury of the large nerves, not being at the same time cases of compound fracture.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total - -	84	241	—	203	—	—	38	—	42	—	33	—	—	9	—

Table showing the **Operations** performed in **Egypt** resulting from **Wounds** and **Injuries** received during the **Campaign** of the Nile Expeditionary Force.

Nature of Operations.	Commissioned Officers.				Warrant and Non-Commissioned Officers and Men.				Diseases or Injuries which necessitated the operations.
	Operation performed.		Deaths following the foregoing operations.		Operation performed.		Deaths following the foregoing operations.		
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Amputations :—									Gunshot wounds in action.
Upper extremities :									
Arm, upper	—	—	—	—	2	1	—	—	
Forearm	—	—	—	—	—	1	—	—	
Fingers	1	1	—	—	—	—	—	—	
Lower extremities :									
Thigh :									
At upper third	—	3	—	—	—	2	—	2	
At middle ,,	—	—	—	—	—	2	—	1	
At lower ,,	—	—	—	—	1	2	—	—	
Leg :									
Upper third	—	—	—	—	1	—	—	—	
Middle ,,	—	—	—	—	1	—	1	—	
Lower ,,	—	—	—	—	—	1	—	—	
Ankle-joint	—	—	—	—	—	3	—	—	
Excisions :—									
Upper extremities :									
Wrist	—	—	—	—	—	1	—	1	
Shoulder	—	—	—	—	—	1	—	1	
Portions of radius and ulna	—	1	—	—	—	—	—	—	
Extraction of bullets and other foreign bodies	—	2	—	1	1	20	—	—	
Ligature of Arteries :—									
Radial	—	—	—	—	1	—	—	—	
Other operations	—	—	—	—	—	2	—	—	
Total	1	7	—	1	7	36	1	5	

TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, DEATHS, and NUMBERS INVALIDED among the Troops of the Nile Expeditionary Force from March 18, 1884, to July 31, 1885, with the Ratios per 1,000 of the Strength.

TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL,
Expeditionary Force, from March 18, 1884, to

DISEASES.	Commissioned Officers.					
	Average strength 600.			Ratio per 1,000.		
	Admissions into Hospital.	Deaths, including Killed in Action.	Invalided.	Admissions.	Deaths	Invalided.
CLASS. I.—GENERAL DISEASES.						
Febrile Group:						
Eruptive fevers { Small pox	3	—	—	5·0	—	—
Eruptive fevers { Other	—	—	—	—	—	—
Continued { Enteric	47	15	1	78·4	25·00	1·67
Continued { Other	135	1	1	225·0	1·67	1·67
Yellow fever	—	—	—	—	—	—
Paroxysmal fevers	8	1	1	13·3	1·67	1·67
Cholera	—	—	—	—	—	—
Other diseases	2	—	—	3·3	—	—
Total of febrile group	195	17	3	325·0	28·33	5·00
Constitutional Group:						
Rheumatism	9	—	2	15·0	—	3·33
Primary syphilis	—	—	—	—	—	—
Secondary „	1	—	—	1·7	—	—
Tubercular diseases	—	—	—	—	—	—
Scurvy and purpura	—	—	—	—	—	—
Other diseases	—	—	—	—	—	—
Total of constitutional group	10	—	2	16·7	—	3·33
CLASS II.—LOCAL DISEASES.						
Diseases of the—						
1. Nervous system	12	2	4	20·0	3·33	6·67
2. Eye	4	—	—	6·7	—	—
3. Ear	3	—	—	5·0	—	—
4. Nose	—	—	—	—	—	—
5. Circulatory system	1	—	1	1·7	—	1·67
6. Absorbent „	2	—	—	3·3	—	—
7. Ductless glands	—	—	—	—	—	—
8. Respiratory system	2	—	—	3·3	—	—
9. Digestive	126	6	11	210·0	10·00	18·33
10. Urinary system. { Gonorrhœa	—	—	—	—	—	—
10. Urinary system. { Sequelæ of gonorrhœa.	—	—	—	—	—	—
10. Urinary system. { Other diseases	2	—	1	3·3	—	1·67
11. Generative system	2	—	1	3·3	—	1·67
12. Organs of locomotion	3	—	2	5·0	—	3·33
13. Cellular tissue	8	—	—	13·3	—	—
14. Cutaneous system	14	—	2	23·3	—	3·33
CLASS III.						
Debility	96	—	63	160·0	—	105·00
CLASS IV.						
Poisons	—	—	—	—	—	—
CLASS V.						
Injuries:						
1. General	1	1	—	1·7	1·67	—
2. Local	7	—	—	11·7	—	—
3. In action	26	14	15	43·3	23·33	25·00
No appreciable disease	—	—	—	—	—	—
Cause unknown (refers to deaths only).	—	1	—	—	1·67	—
General total	514	41	105	856·6	68·33	175·00

DEATHS, and NUMBERS INVALIDED among the Troops of the Nile July 31, 1885, with the Ratios per 1,000 of the Strength.

Warrant and Non-commissioned Officers and Men.						Diseases.
Average strength, 10,771.			Ratio per 1,000.			
Admissions into Hospital.	Deaths, including Killed in Action.	Invalided.	Admissions.	Deaths.	Invalided.	
						CLASS I.—GENERAL DISEASES.
						Febrile Group:
41	5	—	3·8	·47	—	Eruptive fevers: Small pox.
6	—	—	·5	—	—	Eruptive fevers: Other.
760	277	63	70·6	25·71	5·85	Continued: Enteric.
1,635	6	40	151·8	·56	3·71	Continued: Other.
—	—	—	—	—	—	Yellow fever.
61	—	5	5·7	—	·47	Paroxysmal fevers.
—	—	—	—	—	—	Cholera.
11	—	—	1·0	—	—	Other diseases.
2,514	288	108	233·4	26·74	10·03	Total of febrile group.
						Constitutional Group:
160	—	10	14·9	—	·93	Rheumatism.
429	—	—	39·8	—	—	Primary syphilis.
164	—	8	15·2	—	·74	Secondary „
21	4	7	1·9	·37	·65	Tubercular diseases.
8	—	2	·7	—	·19	Scurvy and purpura.
1	—	1	·1	—	·09	Other diseases.
783	4	28	72·6	·37	2·60	Total of constitutional group.
						CLASS II.—LOCAL DISEASES.
						Diseases of the—
143	15	22	13·3	1·39	2·04	1. Nervous system.
511	—	7	47·4	—	·65	2. Eye.
41	—	3	3·8	—	·28	3. Ear.
—	—	—	—	—	—	4. Nose.
50	1	19	4·6	·09	1·77	5. Circulatory system.
45	—	1	4·2	—	·09	6. Absorbent.
—	—	—	—	—	—	7. Ductless glands.
196	9	8	18·2	·83	·74	8. Respiratory system.
2,402	72	165	223·0	6·68	15·32	9. Digestive.
197	—	—	18·3	—	—	10. Urinary system. Gonorrhœa.
57	—	—	5·3	—	—	10. Urinary system. Sequelæ of gonorrhœa.
39	—	—	3·6	—	—	10. Urinary system. Other diseases.
60	—	—	5·6	—	—	11. Generative system.
43	—	3	4·0	—	·28	12. Organs of locomotion.
387	—	8	35·9	—	·74	13. Cellular tissue.
367	—	6	34·1	—	·56	14. Cutaneous system.
						CLASS III.
464	—	170	43·1	—	15·78	Debility.
						CLASS IV.
10	1	—	·9	·09	—	Poisons.
						CLASS V.
						Injuries:
—	37	—	—	3·44	—	1. General.
384	2	8	35·7	·19	·74	2. Local.
241	126	74	22·4	11·70	6·87	3. In action.
19	—	—	1·8	—	—	No appreciable disease.
—	2	—	—	·19	—	Cause unknown (refers to deaths only).
8,953	557	630	831·2	51·71	58·49	General total.

APPENDIX No. II.

REPORT ON THE MEDICAL AND SURGICAL TRANSACTIONS OF THE SUAKIN EXPEDITIONARY FORCE.

By Deputy Surgeon-General Oliver Barnett, C.I.E., dated 26th May 1885.

Medical establishment.

The following medical establishment was organised by the Director-General, M.S., and sent out to Suakin :—

1 deputy surgeon-general, P.M.O., to the field force.
1 deputy surgeon-general, of base and line of communication.
1 sanitary officer.
1 field surgeon.
1 registrar.
A staff of 45 medical officers was distributed in the hospital ship "Ganges," base hospital, stationary field hospital, 4 field hospitals, and 2 bearer companies (of the remainder, one was attached to each regiment, battery, and corps).

"Ganges."

(2.) The hospital ship "Ganges" arrived at Suakin on the 15th March fully equipped and ready to receive sick in charge of Surgeon-Major G. C. Gribbon. The wounded and severe cases of sickness, both officers and men, were at once sent on board for treatment.

Base hospital.

(3.) The base hospital under Brigade Surgeon W. Tanner was established on the 17th March on an elevated plot of ground at H. Redoubt, with accommodation for 4 officers and 200 men in large Indian pattern tents.

Auxiliary hospital.

(4.) The auxiliary hospital in Quarantine Island was used for receiving sick before the base hospital was established, and has since continued to be used as a supplementary hospital.

"Bulimba."

(5.) This vessel was used as a hospital ship before the arrival of the "Ganges," and has since continued to be used for treatment of slighter cases under the care of Surgeon-Major A. W. Bate.

Stationary field hospital.

(6.) The stationary field hospital, with its officers, non-commissioned officers, and men, came out in the "Calabria," which arrived on the 15th March. There being at this time sufficient hospital accommodation, it was not considered necessary to establish a stationary one.

A section of this hospital for 50 beds was established at Handub on the 14th April under Surgeon-Major Crean, and was subsequently in charge of Surgeon-Major Barrow. It has been useful as a rest house for sick between the front and base.

Field hospitals.

(7.) Each of the 4 field hospitals came out fully equipped, Nos. 1 and 2 were first to arrive in the steamship "Arab" on the 7th March, No. 4 came out next with the Guards Brigade, and No. 3 in the "Calabria" on the 15th of the same month.

The transport animals were provided here as soon as possible according to scale.

The bell tents having been considered unsuitable for this climate, Indian privates tents were substituted instead, 12 for the sick, 1 for officers, and 3 for non-commissioned officers and men.

No. 1 field hospital.

(8.) No. 1 field hospital in charge of Surgeon-Major J. A. Shaw was equipped with transport and ready for service in the field in a few days after its arrival. This hospital did good service at the battle of "Hasheen," where Surgeon Lane, one of its officers, was shot.

No. 2 field hospital.

(9.) No. 2 field hospital in charge of Surgeon-Major J. Fleming was attached for duty with the second brigade.

This hospital was in the centre of the square at the battle of Hasheen, and rendered most valuable service in dressing the wounded on the field.

The right half of this hospital was with General McNeill's force on the 22nd March.

(10.) No. 3 field hospital in charge of Surgeon-Major W. E. Riordan was the last to arrive and has been permanently stationed in camp, and has latterly received sick from the cavalry, mounted infantry, and other details. No. 3 field hospital.

(11.) No. 4 field hospital. This hospital has been entirely used for the brigade of Guards, and has been always under the care of Surgeon-Major Read, assisted by Surgeons-Major Lawrence and Meyers, Surgeon Robinson, and Quartermaster W. McKay, M.S. No. 4 field hospital.

(12.) Two field hospitals for native followers, with tents, equipments, and native establishments, came out from India in charge of Surgeons H. Hendley and Audson, Indian Medical Service. One was established at "Sphinx Redoubt" and the other at "Handub." Field hospitals for native followers.

(13.) No. 1 bearer company in command of Surgeon-Major W. J. Wilson was attached to the Guards Brigade. The ambulance waggons of the company were found to be most useful. No. 1 bearer company.

(14.) No. 2 bearer company in command of Surgeon-Major E. J. H. Evatt was posted to the cavalry brigade. This company has been employed latterly in transport of sick between Tambuk and Otao, and have done their work well. No. 2 bearer company.

(15.) Temporary aid to sick of regiments and corps was afforded by the medical officers in charge, who were supplied with medical and surgical equipment as laid down in the revised regulations. Evacuation of sick and wounded.

Every man reported sick after being seen by the regimental surgeon was passed on to the field hospital of the brigade, where they were treated, and if necessary admitted. Being non-dieted, field rations were used, cooked according to requirements, and supplemented with medical comforts, such as beef-tea, arrowroot, milk, cocoa, port wine, and anything else the medical officer considered it necessary to obtain from the commissariat stores, which in this campaign were most liberally supplied for the use of the sick. The National Aid Society's stores were therefore superfluous, and in no instance were they required for the use of the sick.

In order to carry out the system of evacuation, all sick and wounded, with the exception of men likely to be fit for duty within a short period, were transferred to the base and auxiliary hospitals, "Ganges" and "Bulimba," which were equipped and conducted strictly in accordance with rules laid down for administration of station hospitals at home.

(16.) The medical aid to the force which proceeded on the 20th March to occupy Hasheen was the same as arranged for the three brigades. Fight at Hasheen.

The medical officers in charge of field hospitals were instructed to be provided with all the necessary appliances for aiding the wounded, and to be prepared to supply the wounded with soup to be cooked on the field, and to supplement it with erbswurst if required.

In the fight which ensued, the following casualties occurred among the British troops.

Officers.—Killed—Lieut. M. D. D. Dalison, Scots Guards, shot through the heart.

Wounded—Surgeon J. R. Lane, Medical Staff, No. 1 field hospital, shot through the lung, dangerously. Died the next day.

Major A. B. Harvey, 5th Lancers, spear wound of left thigh. Not dangerous.

Non-commissioned officers and men.—

Killed, 2.		24 gunshot.
Wounded, 27.	16 slight.	1 sword or spear wound.
	5 severe.	1 lance or bayonet wound.
	6 dangerous.	1 contusion.

The wounded were all antiseptically dressed on the field and brought into camp in dandies on the return of the troops the same day, and sent to the base hospital where they received every attention.

The left half of No. 2 field hospital and 5 dandies in charge of Surgeon Smith were left with the force which remained in the zareba at Hasheen.

(17.) On the 22nd the following force under General McNeill proceeded to form a zareba about 7 miles from Suakin on the road to Tamai:— Fight at McNeill's zareba

1st Battn. Berkshire Regiment, Royal Marine Artillery, 28th Bombay Infantry, 1 squadron 5th Lancers, 1 company Royal Engineers, the right half of No. 2 field hospital, and 5 dandies accompanied the force.

While a zareba was being constructed they were attacked by a large body of Arabs, who were, however, eventually beaten off, but not without considerable loss on our side, both in men and transport animals.

As soon as it became known in camp, I ordered Nos. 1 and 2 bearer companies, with 40 dandies, to go with the brigade of Guards which Sir Gerald Graham pushed on to the scene of action. I accompanied this force. The relief column, however, turned back as soon as it was signalled that the zareba was safe for the night, and the wounded were provided for.

The next morning 40 dandies accompanied a convoy to the zareba and brought in all the sick and wounded safely to the base hospital, where they were attended to.

On the 24th the left half of No. 1 field hospital was sent with a convoy to aid with medical comforts and surgical material. The convoy was attacked by large numbers of the enemy, and some of the medical comforts, tents, rations, &c. were lost, one man was killed, and one officer and thirteen men were wounded.

The following is a list of the killed and wounded on the 22nd and 24th March:—

Officers.—Killed—Lieut. G. S. Swinton, 1st Battn. Berkshire Regiment, sword wound. Lieut. Seymour, R.N., sword cut. Quartermaster Eastmead, O.S. Corps, multiple spear and sword wounds.

Wounded—Surgeon Digan, R.N., H.M.S. "Sphinx," flesh wound, left arm severe. Lieut. A. Charteris, Coldstream Guards, spear wound of hand, severe. Lieut. N. de C. Dalrymple, Scots Guards, spear wound of shoulder, severe.

Non-commissioned officers and men.—

Killed, 35.

Gunshot, 13. Sword and spear wounds, 22.	2 Royal Engineers. 15 1st Battn. Berks. 2 C. and T. Corps. 2 M. S. Corps. 7 R.M. Lt. Infantry. 4 R.M. Artillery (H.M.S. "Dolphin"). 1 H.M.S. "Condor." 1 H.M.S, "Starling."

Wounded 59.

1 20th Hussars. 3 Royal Engineers. 28 1st Battn. Berks. 1 1st Battn. Royal Sussex. 4 Med. Staff Corps. 18 R.M. Lt. Infantry. 2 H.M.S. "Dolphin." 1 „ "Condor." 1 „ "Coquette."	15 slight. 35 severe. 9 dangerous. 37 gunshot. 19 sword or spear wounds. 3 lance or bayonet wounds.

Reconnaissance on Tamai.

(18.) A force of 304 officers, 6,884 non-commissioned officers and men, British troops under Sir Gerald Graham, marched from Suakin at 4 a.m. on 2nd April to make a reconnaissance on Tamai. At McNeill's zareba it was joined by the 1st Battn. Berkshire Regiment. On reaching Tassella Hills late in the afternoon without any incident of importance the force prepared to bivouac for the night, after a long, fatiguing, and uninteresting march through sand and scrub for about 15 hours, during which only about half-a-dozen men fell out from exhaustion and were carried in the waggons.

During the night the enemy fired a few shots into the zareba at a long range, wounding 2 men of the Berkshire Regiment, and two transport animals. One private of the East Surrey Regiment was accidentally shot.

The advance on Tamai was made early next morning (April 3rd), and the following were the medical arrangements for the force:—

No. 1 bearer company without the wheeled transport, but taking 30 dandies with 6 bearers to each. Half of the Guards' field hospital, and half of No. 2 field hospital.

A small scattered band of the enemy engaged the force from the adjoining hills, and the following casualties occurred :—

Officers.—Killed, none. Wounded, 1.

Non-commissioned officers and men.—

Killed, 2. 1 East Surrey Regt. } Gunshot.
1 1st Battn. Berks. Regt.

Wounded, 13.

2 3rd Battn. Grenadier Guards
2 1st Battn. Coldstream Guards
2 2nd Battn. Scots Guards
2 1st Battn. East Surrey Regt.
3 1st Battn. Berks. Regt.
2 N.S.W. Contingent

} 2 dangerous.
6 severe.
5 slight.
2 sword wounds.
11 gunshot.

The wounded were carried back to the zareba in dandies, and suitable cases were transferred to the ambulance waggons. These, with 34 sick from the field hospitals and 7 men who fell out on the march, were brought in waggons and dandies to McNeill's zareba at once with the returning force. The wounded remained as they were in the waggons and dandies. Blankets were obtained for those who required them. Beef tea and milk were issued twice during the evening and again in the morning before starting.

At 7.30 a.m., April 4th, six ambulance waggons, with 37 sick and wounded and six dandies with the severe cases left the zareba with the force in square formation as before. Eleven more men who fell out from exhaustion on the march were also carried, and all were taken to the base hospital. Four officers were sent on board the "Ganges" and one with diarrhœa to his own regiment.

The following were the general medical arrangements for the force :—

Bearer Companies.—No. 1 bearer company, with 6 ambulance waggons, 8 Maltese carts, 15 dandies with 6 bearers to each. No. 2 bearer company, with 28 pairs mule litters and cacolets, 15 dandies with 6 bearers each.

Field Hospitals.—No. 1 field hospital, right half of No. 2 field hospitals from McNeill's zareba, right half of Guards' field hospital.

Medical Stores.—A reserve of medical stores and 22 boxes of ice.

Surprise of enemy at Deberet.

(19.) On the 6th of May, a small force from head-quarters, Suakin, and a column from Otao started during the night for a village held by the enemy at Deberet. It was not considered necessary to send out a field hospital, but a sufficient number of dandies were provided.

The enemy were surprised at daybreak, and their camels and cattle captured.

The following casualties occurred :—

Officers.—Killed—None.

Wounded—Lieut. A. Austin, Mounted Infantry (Shropshire Regt.), spear wound of right arm, severe.

Non-commissioned officers and men.—Killed—None.

Wounded 2.

Gunshot wound, severe. { 1st Coldstream Guards (Mounted Infantry)
1st Grenadier Guards (Mounted Infantry).

During the months of March and April the general health of the troops may be considered as exceptionally good, the average sick being about 4.30 per cent.

In the early part of the campaign the most prevalent diseases were diarrhœa, sun fever, and nervous exhaustion; there were also a large number of venereal cases developed on the voyage out, and some, I believe, contracted in the country.

The following table will show the number of daily sick from all causes during the months of March, April, and May, and the gradual increase shows in a very remarkable manner the effect produced upon the health of the troops by the very arduous duties they were called upon to perform, and still more as the weather became hotter how sickness increased to an alarming extent, and all fevers showed a tendency to merge into enteric.

SUAKIN EXPEDITION, 1885.

Daily Summary of Sick and Wounded, British Forces.

Date 1885.		Officers.		Non-Commissioned Officers and Men.	
		Sick.	Wounded.	Sick.	Wounded.
March	8	1		107	
	9	3		117	
	10	3		158	3
	11	4		113	3
	12	6		120	3
	13	4		134	3
	14	4		151	3
	15	4		164	3
	16	5		171	4
	17	4		182	7
	18	6		170	8
	19	5		181	8
	20	4		170	8
	21	3	1	181	38
	22	3	2	172	37
	23	5	8	185	35
	24	5	4	235	74
	25	5	6	195	75
	26	10	8	216	104
	27	10	8	251	104
	28	12	8	263	104
	29	13	8	267	103
	30	22	8	267	102
	31	16	8	333	101
April	1	15	8	314	100
	2	16	8	314	96
	3	13	2	304	32
	4	14	2	234	23
	5	20	3	252	31
	6	19	3	261	30
	7	20	3	279	30
	8	25	3	306	29
	9	26	3	325	29
	10	26	3	322	28
	11	25	3	337	28
	12	25	3	357	28
	13	25	3	373	27
	14	25	3	382	24
	15	28	3	388	24
	16	25	3	312	18
	17	20	1	308	8
	18	20	1	319	6
	19	19		331	5
	20	18		338	5
	21	22		354	5
	22	23		340	6
	23	21		365	6
	24	27		356	6
	25	27		368	6
	26	27		393	6
	27	28		402	4
	28	30		415	4
	29	25		352	3
	30	25		360	3
May	1	28		393	3
	2	28		415	3
	3	29		414	2
	4	29		447	2
	5	26		519	3
	6	28		560	3
	7	18	1	467	4
	8	20	1	493	4
	9	22	1	524	4
	10	23	1	557	4
	11	27	1	604	4

Total number invalided to England, 39 officers and 418 men. Total number invalided to Suez, 1 officer and 169 men. Total killed, 5 officers and 47 men. Total wounded 5 officers and 116 men. Total missing, 1 officer and 40 men.

In addition to the foregoing report by Deputy Surgeon-General Barnett, the following extracts from the reports of other medical officers attached to this expeditionary force will be found of interest:—

Deputy Surgeon-General G. L. Hinde, C.B., Principal Medical Officer at the base of operations, writes:—

"In accordance with your instructions I have much pleasure in presenting " the reports of the medical officers who have had charge of hospitals or " hospital ships at the base. I fully concur in their commendations, as I " consider the work has been carried out well, and the sick have had every " care bestowed upon them that diligence and foresight could render. The " wounded have been treated in the most scientific manner and under anti- " septic dressings; the results have been most gratifying."

Surgeon-Major W. J. Wilson, commanding No. 1 bearer company, writes:—

"On 9th March 1885 application had been made for transport animals, but " these were not supplied, notwithstanding the repeated applications of the " Principal Medical Officer to obtain them, till March 28th; and even had " animals been forthcoming at an earlier date no harness could have been " found for them till the 27th, when it was landed from another ship."

Of the battle of Hasheen the same medical officer writes:—

"Several casualties occurred, one of the first being Surgeon Lane, M.S., " shot through the chest and literally falling into the arms of the men of the " company. Other men and followers were also wounded there and promptly " attended to, and placed in dandies, the bearers of which had, at first, " attempted to bolt out of the square. Under the peculiar circumstances of " the action no regular dressing station could be formed, but all casualties were " attended to as they occurred by the various medical officers of the " force . . . .

"I had in this engagement the first opportunity of applying 'first dressings.' " These are easily applied, and I believe effective. The Gamgee pad is too " small. The regulation dressing most suitable, but I consider it more " effective when a little iodoform is added and a layer of boracic or salicylic " wood placed over all . . . .

"The men of the company were told off to attend to the men in doolies and " see them supplied with water, milk, and beef tea, as required during the " dusty march. In a tropical country this will be one of the most important " duties of the medical staff corps and bearer companies, the actual carrying " of the sick and wounded being done by natives.

"I changed the tip carts brought out from England for an equal number of " Maltese carts, the former being unsuited for the harness supplied, and so " unserviceable. The Maltese carts are lighter and equally useful, though " they require more careful loading."

With regard to the march to Tamaai, Surgeon-Major Wilson says, "The " first portion of the march to McNeill's zareba, 6 miles, was over very easy " ground, but the onward journey, toward the low hills, north of the Tamaai " wells, was very close from dense bush and rough from numerous 'khors' " or dry watercourses. The waggons, however, get on admirably, though " the drivers could take no choice of ground or course, being jammed in " the crowd in the square, and so had to go over or through whatever they " chanced to come across . . . . The waggons did good service, and it was " not till after all the sick, &c. had been duly delivered at the base hospital " that any of them broke down though severely tried by the rough country " as already mentioned . . . . Since then several have broken down, and all " in a similar way, the bar connecting the body with the forecarriage by the ' centre pivot or pin always breaking."

Of the equipment, Surgeon-Major Wilson writes:—

"The equipment supplied has been most suitable. The difficulty experienced about horses, waggons, and carts confirms me in the opinion I " have always had, that before a bearer company takes the field it should be " exercised with its equipment in actual practice at home and embark in its " entirety fit for work . . . .

"The tents (single circular) were quite unfitted for the climate, and were " changed for European privates' (Indian) tents, as the heat increased."

Surgeon-Major G. J. H. Evatt, commanding No. 2 bearer company, writes :—

"A great advantage, it seems to me, would result if all the non-commis-
" sioned officers and men could be drawn from one district or garrison. The
" present system of gathering in men from out stations and posting them
" indiscriminately to units enables badly conducted men to escape detection
" and places good and bad on the one dead level . . . There is much need
" for various portions of spare equipment being supplied from home. Spare
" litter pins with chains attached. Span straps and a punch for making holes
" in them. Spare surcingles, spanner for nuts in the litter. A pair of strong
" cutting pliers are needed for wire cutting . . . . Eight surgical haversacks
" were not sufficient for the company. I recommend one for each officer
" and one for each non-commissioned officer of every class, in addition to the
" present eight supplied. One or two spare haversacks to replace losses
" would be also useful . . . . The transport staff of the company should be
" detailed and posted to it in England. The need of a shoeing smith and
" collarmaker was much felt. All these should be posted to the company
" on mobilisation . . . . The surgical haversacks and the stretchers should
" be issued to the company at Aldershot, and thence carried on board the
" transport for use on landing. We suffered much inconvenience by the
" delay in unloading the 'Calabria.' The true way, no doubt, would be to
" mobilise at Aldershot or other centre, and then take over all the equipment,
" and so move on board ship, with mules, muleteers, and stores complete . . . .
" The divisional boxes are too heavy when filled with brandy and medical
" comforts. I would prefer lighter loaded boxes, and would not put all the
" wine and brandy in one box, but rather half the brandy and half the arrow-
" root and half the tea in one box and half in another, so that even half a
" load for a mule, or one box, would contain all that was needed for a detach-
" ment or section of the company. The power of sub-division is very
" important for war purposes."

Surgeon-Major W. E. Riordan, in medical charge of No. 3 field hospital, writes :—

"The camel ambulance attached to the hospital consisted of 13 pairs of
" litters and 44 pairs of cacolets. The camel cacolets consist of a pack saddle,
" and on either side a jointed or hinged seat on a strong iron frame, padded,
" entire weight 112 lbs. The patient is secured in the seat by means of leather
" straps; he can only travel in a sitting posture. Improvements might be
" made in the cacolet by which the patient's position could be altered accord-
" ing to circumstances. These cacolets, when fully developed, will be a most
" efficient means of conveying sick and wounded in countries suitable for
" camel transport. The pack saddles of the cacolet are of an universal pattern,
" but not so the backs of the camels on which they are placed; in fact, the
" shape of a camel varies much—more so than any other beast of burden;
" and to have the ambulance efficient much time should be spent in fitting
" the pack saddles to which the cacolets are attached. This should be done at
" the time of issue. One great advantage of the cacolet fittings is that the
" camel having them on is at the same time available for carrying a load—
" water, tents, &c.

"The present camel litters are unserviceable as means of transport for sick
" and wounded. They are attached on either side of a pack saddle of the
" same pattern as that used for a cacolet, but they stand too far out from the
" animal's side, and the majority of camels, some more than others, give a
" swaying or pitching motion to the litters, so as to have the same sickening
" effect as caused by the rolling of a ship at sea. It is such as to disturb a
" fracture or bring on hemorrhage from a wounded lung.

"Camels, especially when alarmed, are likely to crowd together, and when
" a weakly constituted contrivance is projecting from their sides it gets
" knocked together, broken, or entangled, and the patient may come to grief.
" Moreover, in these litters persons on foot cannot afford assistance (owing to
" the height of the beast), such as might be done in the case of mule litters
" were an attendant walking alongside. The motion, while the animal is
" getting up or kneeling down, would be very trying to a helpless patient.
" This is more felt owing to the position of the occupant in a litter than in a
" cacolet. The framework is too flimsy, and the bed of the litter is too broad;

" this gives a feeling of insecurity, and alarms the patient. The hood is " too near the face of the individual carried to allow a free current of " air.

" The means of securing the joints with iron pins, which are frequently lost, " is imperfect. These pins are attached by cords, which get cut in the " hinges."

Surgeon-Major C. Read, Coldstream Guards, in medical charge of No. 4 field hospital, says:—

" No spirituous liquors have been used during this campaign, and I am of " opinion that their absence has largely contributed to the efficiency of the " troops during the arduous duties performed by them."

TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, and DEATHS among the troops of the Suakin Expeditionary Force, from March 1st to May 14th 1885, with the ratios per 1,000 of the strength.

Diseases.	Warrant and Non-commissioned Officers and Men.			
	Average strength 7,235.		Ratio per 1,000.	
	Admissions into Hospital.	Deaths, including Killed in Action and Missing.	Admission.	Deaths.
CLASS I.—GENERAL DISEASES.				
Febrile Group:				
Eruptive fevers { Small-pox	3	—	·4	—
Eruptive fevers { Other	—	—	—	—
Continued „ { Enteric	88	11	12·2	1·52
Continued „ { Other	129	—	17·8	—
Yellow fever	—	—	—	—
Paroxysmal fevers	38	1	5·2	·14
Cholera	—	—	—	—
Other diseases	1	—	·1	—
Total of febrile group	259	12	35·7	1·66
Constitutional Group:				
Rheumatism	78	—	10·8	—
Primary syphilis	181	—	25·0	—
Secondary „	41	—	5·7	—
Tubercular diseases	2	—	·3	—
Scurvy and purpura	—	—	—	—
Other diseases	2	—	·3	—
Total of constitutional group	304	—	42·1	—
CLASS II.—LOCAL DISEASES.				
Diseases of the—				
1. Nervous system	226	2	31·2	·28
2. Eye	49	—	6·8	—
3. Ear	9	—	1·2	—
4. Nose	—	—	—	—
5. Circulatory system	9	—	1·2	—
6. Absorbent	31	—	4·3	—
7. Ductless glands	—	—	—	—
8. Respiratory system	31	—	4·3	—
9. Digestive	692	2	95·6	·28
10. Urinary system { Gonorrhœa	59	—	8·2	—
10. Urinary system { Sequelæ of gonorrhœa	12	—	1·7	—
10. Urinary system { Other diseases	12	—	1·7	—
11. Generative system	10	—	1·4	—
12. Organs of locomotion	9	—	1·2	—
13. Cellular tissue	58	—	8·0	—
14. Cutaneous system	83	—	11·5	—
CLASS III.				
Debility	75	—	10·4	—
CLASS IV.				
Poisons	5	—	·7	—
CLASS V.				
Injuries:				
1. General	—	—	—	—
2. Local	111	1	15·3	·14
3. In action	99	47	13·7	6·50
No appreciable disease	3	—	·4	—
Missing	—	40	—	5·52
General total	2,146	104	296·6	14·37

APPENDIX No. III.

REPORT OF No. 2 FIELD HOSPITAL (BASE) FOR FOLLOWERS (NATIVE, ARAB, AND EUROPEAN), WITH THE BRITISH FORCES, EASTERN SOUDAN, FROM MARCH 12TH TO JUNE 10TH, 1885, INCLUSIVE.

By Surgeon H. **Hendley**, Indian Medical Service.

According to instructions received by telegram from the Surgeon-General, Her Majesty's Forces, Bengal, I left Umballa for Bombay, reaching this place on February 27th, 1885, and having reported myself to the Deputy Surgeon-General, Her Majesty's Forces, Bombay, took over the charge of two field hospitals intended for the treatment of native followers with the British forces at Suakin and then in course of preparation.*

It had previously been decided by the Indian Government that hospital equipment, medical stores and establishment should be provided for 3 per cent. of strength. Also that two surgeons should be put in charge, one of either hospital, having apothecaries serving under them in the place of commissioned officers, and in addition hospital assistants as laid down in the Government of India, Regulation Clause 82, para. 3, Appendix A.

The number of followers was stated to be 6,500, 50 tents were supplied, giving accommodation at the rate of 8 to each tent, for 200 sick.

When ready, the stores were at once put on board ship. It had been intended that all should go under the care of one of the medical officers, but owing to an alteration in the embarkation arrangements some were sent on in advance in the S.S. "Rhosina." The larger portion of the stores, however, of both hospitals were under my care on board the S.S. "Darien."

In addition to putting the necessary stores, tents, equipments, and furniture on board ship for two field hospitals for native followers, with British troops, I was ordered by telegram from the Surgeon-General, Her Majesty's Forces, Bengal, to inspect all followers leaving Bombay for Suakin. This duty was of the most difficult description. Trains, bringing in men, arrived at all hours without the knowledge of the authorities, and the men were on several occasions on board ship before the necessary information as to their whereabouts could be obtained. All were examined, but, owing to these causes, the examination was of necessity in several cases of the most superficial character. Several were rejected, but my experience has since shown me that many more might have been sent to their homes with a good result. I refer to men who had had previous eye disease. I have noticed that nearly all the cases under this heading admitted to hospital, have had indications of old keratitis, or one useless eye.

Although men were often hustled from train to ship, in other cases they were left too long in Bombay, contracting venereal, which afterwards showed itself either on board ship or on arrival at their destination.

The Voyage.—Even for the short period of eleven days I consider that the ships were too closely packed. The "Darien" had 950 followers on board, and these were packed in a space that would have been fairly crowded with only 600. As it was, although the deck was utilised, the men overlapped one another as they lay asleep. In spite of this, those men who cooked their rations did very well, but it was far otherwise with the non-cooking. These suffered greatly on board, and many of them were so debilitated by it that they have not been really fit for hard work since. I think that if these men are engaged for service of this kind at any future date they should either be persuaded to take cooked food, or it should be made one of the points of agreement. Some of the officers commanding succeeded in overcoming their scruples, and I should say that in most cases there would be but little difficulty. Invalids I have found most pliable, the only stipulation being that "a man of their own caste should cook the food."

Lime juice was given on board when two days out, with benefit to the men. Natives never supply themselves too well with vegetables, and it has been my experience here and on board ship that much more work can be expected when there is a liberal expenditure of this fluid. I find no fault with the ships themselves, they were roomy, and for a proper number, well ventilated.

Disembarkation.—On arriving at Suakin arrangements for disembarkation were of the worst description, instructions were difficult to get, the piers crowded and impassable, and it was with the utmost difficulty that I managed to get my stores and a few tents landed. The rest of these tents were not landed till two weeks later, then a steam tug was sent down for them. A great deal depends upon stores being near the surface, and fortunately this was my case. When camels were obtained the packing in great measure had to be done by my own hands, it was almost impossible to get labour. However, after many difficulties had been overcome, the site, which had already been chosen by the Principal Medical Officer, base, Suakin, was reached.

This site, chosen principally for its connexion with a building called "Fort Commodore," was just within the wall skirting the southern side of the town of El Kaf on a piece of ground somewhat lower than that surrounding it, the soil itself being sand, supported by coral at varying depths from the surface, the higher ground around formed by rises in the coral. This seems to be the composition of the greater part of the land between the sea and range of old volcanic mountains some ten miles inland, and accounts for the brackish taste of the water; the coral, exceedingly porous, has its interstices filled with but small quantities of sand, which have become in course of time infiltrated with sodium chloride. Being within the walls the hospital was naturally somewhat cramped; on one side the boarded sheds of the horse infirmary, and on the other the mule lines of the 17th Bengal Native Infantry hemmed it in. The space required was an oblong measuring 430 ft. × 200 ft., the long diameter boarded by the building and wall in the rear, and in front by the general thoroughfare (afterwards railway). The whole was surrounded by a ditch 1 foot in depth; the tents were also ditched round, so that the earth thrown up just protected the head of the patient from dust and direct draughts; the canvas so stretched as to leave plenty of room for good ventilation.

The Lascar Pals served admirably for the first two months, but of late they have been much too hot for the midday sun, and had the men stayed in Egypt for a longer period there is no doubt that double flies would have been necessary.

I must add that some of the iron tips for the supports would not fit the eyes of the ridge poles, and thus caused a great deal of inconvenience.

The beds, eight in a tent, four on each side, were large forage bags partly filled with chaff, and underneath these, separating them from the earth, were tent suleetahs. Fairly comfortable beds these, and easily replaced when rendered unfit for use. The tents were swept out twice a day, and the whole furniture removed and aired every alternate one.

Latrines.—One day, two night. The day latrines were outside the wall for a distance of 290 feet, and consisted of, for Europeans, only a shallow trench, 26 feet long with a shelter behind and in front, and a good seat above consisting of a round wooden bar supported on trestles, the fæces were covered with earth several times during the day, and the whole cleaned out and placed in a pit, dug near every morning. Behind, but still sheltered by the above structure, was an ordinary trench for natives 5 feet deep and kept well supplied with earth.

The night latrine, width 2 feet, depth 6 feet. A trench dug just outside the wall and well out of the camp was sheltered by screens. Besides the above, copper pans were provided at convenient spots on the side of the camp for patients unable to get to the latrines.

The arrangements of the hospital were a good deal hampered by its having no special guard, the "hospital havildar" was greatly missed and much of the time of the medical subordinates was taken up in seeing that the men did their work properly and that order was kept in the camp; the mates were of little use.

Temporary Staff.—Here I might allude to the capabilities of the temporary staff supplied by the Commissariat. The Lascars had the most limited knowledge of how tents should be pitched, and as they were far from intelligent it took a considerable time to make them anything like efficient. The ward boys hardly deserved the name, two or three could be taught, the rest were failures; the mehters and cooks did their work fairly well.

Medical comforts were on the whole good; there was a large quantity of tea supplied, which the natives objected to on the score of its "causing bile;" good coffee or cocoa in its place would have been much more useful. Fortunately the goods had to be moved but little, otherwise the badly constructed boxes would have soon dropped to pieces.

Medical Stores.—Exceedingly well packed, boxes good. However, a great many things which would have been invaluable were apparently considered unnecessary, as iodoform, antiseptic gauze, a large pocket case of instruments, catheters, silver and gum elastic, vaccinating lancet, Acid. hydrochloricum, Ammon. chloridum, Hydrarg, perchloridum, Bismuth sub. nit., Tinct. Benzoin co., Hydrarg. c. creta, Creta ppt., Magnesia carbonas, Asafœtida, liniments, bitter tonic roots or chips, ol. morrhuœ, shop scissors; an insufficient supply of ol. Ricini, Magnesia sulphas, pulv. ipecac. co., pulv. ipecac. rad., pulv. jalapa co., Vinum ipecac., Plumbi acetas, Tinct. Camphor co., Tinct. Hyocyanic, Acid. carbolic, Potassa chloro., Potassii iodidi, Tinct. Ferri. perchloridi. The instrument case, though in my possession, was not in that of my assistants, and in consequence the whole work fell on one. In the field I think it would be a very good plan to serve out a small case to each assistant. On special work of this description he would find it most useful.

Water.—All condensed. From 2 to 3 gallons allowed daily. It was not disagreeable after filtering through charcoal and boiling; when received at the hospital it was of a brownish colour and had rather a disagreeable flavour; there was a good deal of organic material present, in all probability derived from the receptacles in which it was stored; small worms were also found in the water if kept two or three days. I never traced any kind of disease to the water. At first I suspected it as the cause of some of the cases of diarrhœa, but afterwards found the same kind in persons who abstained from water altogether.

Food.—That supplied by the British commissariat was on the whole exceedingly good, and complaints from the patients were rare. Wheat flour was preferred to rice. Given below are the different scales of food as issued during the campaign:—

Natives of India.	Arabs.	Europeans.
(Followers.)	Rice, 1½ lbs.	Bread, 1½ lbs.
Wheat, flour, or rice, 1½ lbs.	Dates, 1 lb.	Meat, fresh, 1¼ lbs.
Dhal, 4 ozs.	Ghee, 2 ozs.	Sugar, 2¼ ozs.
Ghee, 1 oz.	Sugar, 2 ozs.	Tea, ⅓ oz.
Salt, ½ oz.	Coffee, ½ oz.	Coffee, ⅓ oz.
Water, 1 gallon.	Onions, 2 ozs.	Salt, ½ oz.
Wood, 2 lbs.	Salt, ½ oz.	Water, 2 gallons.
	Water, 1 gallon.	Wood, 3 lbs.
	Wood, 2 lbs.	* Biscuit, 1 lb. Potted meat, 1 lb.
		Pepper, ⅓ oz.
		Vegetables, 1 lb.

* In lieu of bread and fresh meat.

There is no doubt that the quantities allowed were quite large enough in the case of Europeans. I thought the meat rather too large, when the men had very little to do and were exposed to a fierce sun.

Lime juice was supplied on my certificate to the labourer corps, but I am of an opinion that this article should always be issued to natives serving in the field; it was found advisable to give it to a large number of those cases admitted into hospital. It will be noticed that the Arab diet is considerably larger than that of the Indians, and certainly they showed to advantage in the matter of condition, but as far as health recovering and healing power went they were a long way behind the natives, as will be seen later on.

Cooking arrangements, &c.—All those patients who could and wished to cook their own food were allowed to do so on the sides of the camp. The remainder were attended to by the Mahomedan and Hindoo cooks respectively, the cooking places being sufficiently far apart, and away from the chance of contamination. The cooking utensils supplied at Bombay were insufficient.

The relation of Corps to the Hospital.—The greatest difficulty was experienced in obtaining the names of the respective corps to which the men belonged. Sick reports, written on scraps of paper and signed by a sergeant, the name of the corps left out altogether, or an indefinite term like camel corps used, were considered all that was necessary. After the attention of the officers had been called to this, and a copy of the report required circulated some improvement was made; but still there was a great deal of difficulty, as, for example, men told off to a company of the Commissariat and Transport Corps were returned as belonging to it, whereas perhaps they belonged to No. 1 or 2 Troop Scinde Camel Corps. If in the future temporary followers are to serve thus with British troops, I certainly consider that two very necessary alterations should be made. The metal ticket which every man carries should have besides his number, his corps and company stamped on it. Printed sick report slips should be supplied to the officers to be signed by some responsible person. The books supplied to the men were often left in the camp with a comrade, and when in the possession of the patients gave little information. Many a time a patient was brought to the hospital in a condition that necessitated his being left there, and no information beyond his number and the fact that he was a camel driver could be obtained; and these two items the Director of Transport informed me again and again were not sufficient to identify the man or find out his commanding officer.

The Burial of the Dead.—A great boon to a hospital of this description would be a small burying establishment. Whilst the corps remained in Suakin there was no difficulty. Men were buried by their comrades, afterwards when they moved out this duty was performed by the bildars and kahars (dooly bearers) attached to the hospital; the latter, however, showed a great objectio to this service, and could with difficulty be persuaded to undertake it.

On this matter of burying the dead (men and animals) the results of this campaign have again brought forward a most important question, the inevitable must be faced, men must die and be buried, and why should there not be an establishment ready trained for this purpose? It might be unpopular, but it would certainly do away with a reproach. Experiments might be tried on dead bodies by such an establishment in peace and in war, equipped for the field with portable crematorium stoves, petroleum, &c. Undertakers are required in peace, why not in war? At the base, if bodies were to be buried and not burnt, theirs would be the care of the graveyard, and then we might not have to see graves just deep enough and no more to cover the lid of the coffin, as was not unfrequently the case at Suakin. Coffins are a mistake, but if used, they should certainly be put well under the soil. Sail cloth would be more suitable, and I think more appropriate to those dying in the tented field.

Doolies and Kahars.—Six of the doolies and 30 of the kahars under Lieut. Acton were attached, on application, permanently to the hospital till their embarkation, when the above doolies were taken over, and men supplied by the Indian contingent.

Those Treated.—Contrary to the previous arrangement of the Indian Government, the whole of the followers with the British forces were treated in the two field hospitals, intended for natives of India alone. This, the No. 2 field hospital, was constituted the base hospital for European followers (Maltese, natives of Gibraltar, Cypriots, Turks and Greeks); the building called Fort Commodore being provided for their reception; it contained 24 cots supplied by the British commissariat, on which were placed mattrasses similar to those provided for the natives. The building was very cool and admitted of excellent ventilation. Arabs from Aden, the Somali coast and Suakin, Egyptians from Cairo and Alexandria, natives of India; these latter were all treated in the tents. Such Eurasians as belonged to the Indo-British transport were treated in the building. All men invalided to their respective countries passed through this hospital, the arrangements for their disposal being made through the Principal Medical Officer, base (British forces) Suakin.

Owing to the large number of patients treated it was found necessary to use some of the tents belonging to No. 1 field hospital, and towards the end of the time most of its surplus medical stores and comforts were taken over and used partly for this hospital and partly for the supply of medical comforts and stores to ships returning to India with followers. From time to time indents were made on the medical stores, British forces, for a supply of medicines; the large number of in and out patients rendering this necessary.

From the time of arrival, the 25th March to the date on which embarkation really commenced, 10th June, the total number of in-patients were: Europeans, 82; natives of India, 669; Arabs, 133. Of out-patients, natives of India 1,042, Europeans 72, Arabs 116. In addition, many of the officers of the Indo-British transport were treated from this hospital.. For five weeks from March 25th to 6th May 1885 all the Europeans in El Kaff (two companies commissariat and transport corps, horse infirmary, and remount depôt) were under the personal care of the officer in charge No. 2 field hospital, native followers, British troops, a special medicine chest being supplied for their treatment.

An assistant attended daily at the camel zariba 1½ miles from the hospital for treatment of out-patients, taking simple medicines with him; and two apothecaries at the request of the Principal Medical Officer, British forces, were attached to Nos. 1 and 2 bearer companies for the treatment of their native sick.

Disease.—Wounds and Operations.—The diseases most prevalent were:—

—	Natives of India.	Arabs.	Europeans.
Ague - - - - -	92	9	8
Primary syphilis - - -	53	5	9
Dysentery - - - -	97	7	—
Ulcer - - - - -	25	27	6
Abscess - - - - -	28	1	1
Bronchitis - - - -	26	3	2
Phthisis pulmonalis - - -	9	2	1
Rheumatism ch. - - - -	10	—	4
Pneumonia. - - - -	10	7	—
Diarrhœa - - - - -	20	4	4
Conjunctivitis - - - -	15	4	2
Other eye affections - - -	9	1	2
Wound, bayonet - - - -	—	1	—
Pleurisy - - - - -	3	1	—
Gunshot wound - - - -	1	—	—
Sword wounds - - - -	8	—	1

Amongst other diseases were 3 cases of cancer, of which 2 were operated upon, 2 of guinea worm, both invalided, the entire worm extracted from one, but another in the same man being discovered, it was thought best to send him to India, as also the other case which had ended in abscess.

The large amount of dysentery and ague amongst the natives of India, compared with other diseases is striking. According to the weekly reports the falling of rain caused a considerable increase of these. Arabs also show a fairly large number. As for the Europeans, no dysenteric or enteric mischief showed itself. The condensed water could hardly have affected these diseases, as it was taken by the three nationalities, and surely would have shown itself in more of the former and some of the latter had this been the case. Many of the cases of dysentery were of a chronic type, and it with ague occurred in men who had previously suffered in India or elsewhere; there is no doubt that in parts of the encampment, and more especially within the walls, the means of kindling and rekindling diseases of this description were most abundant—a porous soil rendered dry and moist by the flow and ebb of the tide, the same soil impregnated with human fæces and camel urine, and added to this an occasional rain that moistened the air and filthy dust, or a breeze that brought in poisonous gases from decomposing animals outside the walls: what else beyond these could be wanting to account for almost every kind of disease? The same remarks may be applied to the cases of diarrhœa, though I think another cause was at work here as regards Europeans. Amongst the soldiers that I attended many of the cases, I had no doubt, were due to the effects of the sun upon the digestive organs; generally this kind was accompanied by retching, loss of appetite, and increase of temperature, pains in the neck and occiput, which recurred after the attack again and again, but no genuine headache. Men suffering in this way had great difficulty in recovering their former state of health.

Ulcers.—A somewhat indefinite term, includes small healing sores amongst the natives and Europeans, and large sloughing intractable ulcers principally amongst the Arabs. The latter invariably tried their own methods of treatment in this as in other diseases before coming to hospital. A small copper coin was fixed carefully over the boil or small wound, soon the ulcer overlapped, another coin somewhat larger was applied, and so on till the largest had failed to heal or the man had found it impossible to get about. On admission to hospital, fuming nitric acid, applied under chloroform, succeeded in some cases, continued hot local baths in others, in checking the malignant action of these ulcers; but afterwards, in spite of all applications, healing was exceedingly slow.

Venereal.—Principally simple sores and gonorrhœa contracted during the short stay in Bombay, Karachi, or in Suakin itself; in the latter place the women (Abyssinians) were registered and inspected by the Egyptian doctors weekly. Obtaining the permission of the Principal Medical Officer, Her Majesty's Forces, I identified several diseased women by means of witnesses who had contracted disease from them, and also attended a weekly inspection with good results.

Respiratory Diseases.—The climate seems to be unfavourable to all respiratory diseases. Phthisis in men with fairly healthy lungs, or perhaps only a tendency to this disease made rapid strides; the alternate dry and moist days and nights, will, I think, account for this. Garments exposed to the atmosphere over night would often be saturated by morning. In examining Arabs a large number were found to have old pleuritic adhesions, their treatment for which, as indeed it is in all cases of internal pain, was the actual cautery, the scar left being about the size of a two anna piece. In two Arabs who died from pneumonia, these old adhesions played a very important part, as also in a case of bayonet wound to be described latter on.

Under wounds are sword cuts, 9 in number; these all healed quickly; 4 returned to duty, 5 being disabled on account of partial loss of motion in limbs; one will be found described under operations.

Spear wounds, two in number, both superficial, did well. Of two rifle wounds, one will be found under operations, the other a prisoner of war, shot through the lower end of the femur by a Martini-Henri bullet, was at first in the H Redoubt hospital, where it was decided not to operate; here the leg was kept in a plaster of Paris splint, but the man unfortunately got congestion of the lungs and died four weeks afterwards; a good deal of bone had separated away, but no attempt at union had been made.

Camel bites.—14 in number, of which the whole were of a serious character; in 4 bone was involved, and 4 required operation.

Railway Accidents.—14, two resulting in operation.

The remaining wounds were slight and the man returned to duty. *See* Return.

Operations :—Resection of Ulna (lower end).—Camel bite, Mahomed Salib, No. 719, age 20. Admitted on the 3rd April with two small wounds covered by exuberant granulations over the lower 3rd of ulna on palmar and dorsal surfaces; on probing, in a profuse collection of pus could be felt the detached epiphysis of the ulna separated from the roughened diaphysis. April 8th, the dorsal wound was enlarged, the loose fragments extracted, a spatula passed under ulna, and half an inch sawn away; drainage tube passed through to opposite wound, dressed with iodoform, tenax and placed on a permanent splint. April 18th, wounds healthy and healing quickly, no purulent discharge. Invalided to Aden.

Suture of Median Nerve and Tendons.—Emanka Matucey, aged 30. Transferred from No. 2 field hospital, British force, where resection of radius was done for a deep horizontal sword cut across the front of the wrists, extending from radial side of ulna to dorsal surface of radius, where it took a downward superficial course as far as the dorsal surface of the metatarsal bone of the middle finger. Admitted March 26th. On April 16th as there was no sensation in the thumb and next 2½ fingers (supplied by the median nerve). I decided upon re-opening the wound; this was done, and after some dissection the ends of the palmaris longus, flexor carpi radialis tendons and median nerve were discovered, the centripetal end of latter being bulbous and superficial, the peripheral deep, apparently normal, both firmly attached to the cicatrix, the bulbous portion was cut off and the opposite end pared, the two ends were brought together, slightly overlapping, and kept in this position by three catgut sutures. The tendons were brought together in the same manner, the hand being in a state of flexion the whole of the time, dressing, slips of carbolic lint, iodoform, tenax kept in flaxed position by means of starch bandage and permanent splint. 18th, doing well. 20th, wound suppurating. 23rd, parts of the old cicatrix sloughing, also small portions of tendons. May 1st, wound healthy, hand less flaxed, sensation in middle and radial side of 2nd finger. May 26th, passive movement in hand commenced. 27th, wound healed, hand shows a fair amount of movement. Discharged June 5th, complete sensation in whole hand, except in two small patches over the dorsal surface of the metatarsal bones of the thumb and index finger, just above the superficial portion of the sword cut; movement in hand increasing.

Epithelioma.—Kharak Singh, Camel Corps, No. 1,373, age 30.

April 11th, malignant-looking ulcer over pubis 3½ inches in a vertical and 2½ in a horizontal direction, edges irregular, raised and rounded, hard and partly covered with blue cicatricial tissue, the base dotted with small pieces of new tissue (cicatricial) with grooves of ulceration leading to a central, somewhat deeper, ulcer with a firm, hard base; inguinal glands slightly enlarged, 180 days' duration. Removed tumour, giving it a wide margin; the mass was exceedingly hard and firm, and in the centre penetrated to the deeper tissues; all suspicious portions were excised. I then brought down a flap of skin from the abdomen to right median line 2½ inches long, 1¼ inch broad, twisted it on its base, and attached it to loose skin of penis, when the sides of the wound were also brought up only a small space was still left uncovered to the left. Dressed with a strip of carbolic lint, iodoform, and tenax and skin of abdomen brought together by means of strapping, legs tied together.

18th April, wound looks well, skin flap already adherent, patient invalided in S.S. "Kangra" 17th July 1885. On inquiry in Bombay, did well, sent to home.

Ununited compound Fracture of Radius and Ulna.—(Middle 3rd.) Davayah, No. 657, age 30, the result of a camel bite. Admitted March 25th with a good deal of purulent discharge from a profusely granulating wound; no sign of union. April 22nd, discharge less; on probing, ends of bone found necrosed with soft tissues between, the old wounds one over either bone on their dorsal surfaces were enlarged, the ends of the two bones were resected in a slanting direction so that corresponding surfaces were applied to one another, holes drilled through and the bones sutured together with silver wire; the wire, after being made fast, left depending from the wounds. Dressing, drainage tube, strip of carbolic lint, iodoform, tenax, and permanent splint. 23rd, doing well; 28th, going on well, wound healthy, bones in good position. Invalided.

Scirrhus Testicle.—Wallee Mahomed, No. 160, age 25 years. Admitted April 20th for a small abscess in the right side and near the middle line of the scrotum in close connexion with the testicle, the skin around was much thickened and indurated; it was opened May 1st; decided to remove testicle, which was somewhat enlarged, slightly irregular, hard, no testicular pain, epididymis and cord thickened to within half an inch of external abdominal ring. The ulcer, left by the abscess, had indurated sharply cut edges, and was firmly adherent to the testicle; from it came a purulent discharge, no pain on probing, lumber glands not enlarged, inguinal slightly. Operation, excision from the external ring to bottom of scrotum, whipcord ligature, the greater part of the tunica vaginalis being adherent; it was removed with the testicle, as also all the hardened skin around the ulcer. Dressing, drainage tube, strip of carbolic lint, tenax, and iodoform.

The testicle was found converted into dense fibrous tissue, arranged more or less in circles, the centres of two having commenced to break down, of which one was connected with the ulcer. May 3rd. Dressed, doing well. June 3rd. The wound has done exceedingly well, man fit for light duty. Invalided.

Gunshot—Remington bullet.—Rajah Ram, mule driver, No. 869, age 22 years. Admitted from Otao with two small superficial wounds on right thigh, joined by a slight thickening of the tissues beneath the skin, the one situated slightly external to the middle line of the front of the thigh and near its centre, the other rather higher up and about five inches from it, and on the inner side of the limb constituted respectively the entrance and exit of a Remington bullet, which afterwards passed into the left foot just in front of astragalo scaphoid articulation; the bullet had been searched for several times whilst in hospital at Otao, from the 26th April to May 5th, with no success. On the 6th May, having been put under chloroform, a digital examination was first tried. This showed great destruction of bone, the scaphoid being in a state of disintegration, and the two internal cuneiform bones much injured. Nelaton's probe was introduced, but without, or rather with partial, success, for though the earthenware was slightly marked, this was without doubt from particles of lead adhering to the bone. Again the finger was introduced, and this time taking care to mark by the position of the foot at the time of the accident, and the general course of the wound, the finger found its way between roughened pieces of bone towards the base of the metatarsal bone of the great toe, with the disengaged hand palpation was applied to the foot, and then between the two fingers a rounded mass could be distinguished lying between the two inside metatarsal bones just in front of their bases. There could be no reasonable doubt that this was the missing bullet; it was accordingly cut down upon and extracted; completely separated from the main wound, it was shut up in a small cavity containing a small amount of bloody serum. Without much difficulty a drainage tube was passed through from above, and the wound dressed with a strip of carbolic lint, iodoform and tenax; a splint was used. May 19th. Bones becoming nicely covered, small fragments separating out, a counter opening made into instep, and an additional tube introduced, the other tube being too far forward to drain wound effectually; superficial wounds in thigh nearly healed.

The bullet was very little damaged; it retained its shape, being slightly grazed on one side with one or two small pieces of bone attached to it.

The position of the patient at the time of receiving the bullet was one peculiar to natives, *i.e.*, partly lying on the right side, the right leg slightly flexed, and the opposite foot drawn up into the crutch with the toes turned out. Invalided.

Other operations were (1) *Internal Hæmorrhoids*, being quite unfit for work, and likely to be so during his stay in Suakin. I decided to operate.

Operation.—Partial incision with silk ligatures, oiled and returned into the rectum, tinct. opii. No. 30. Discharged on the 14th day, fit for duty.

(2.) *Amputation of the hand at the carpo metacarpal*, articulation leaving the thumb. This was for an injury received from a passing train whilst the patient, an Arab, was asleep on the railway. On the day following, the stump (which had been dressed with a strip of carbolic lint, iodoform, tenax, and well drained) looked healthy. He was invalided with his corps to Aden on the 3rd day; on his arrival the stump was doing exceedingly well.

(3.) *A case of camel bite over the upper 3rd of the leg,* causing caries of a large portion of the head of the tibia. The contused skin on either side of the tibial head, having sloughed, had left two small wounds; these were enlarged and carious bone scraped out by means of a scoop. A counter opening was also made in popliteal space, where pus had collected, and connected with the two side wounds without much difficulty by means of drainage tube. The case was going on fairly well, the wounds looked healthy; there was less discharge when the man contracted acute dysentery, and lived but a few days.

In all cases of operation, iodoform, strips of carbolic lint, and tenax constituted the principal part of the dressings used, and with them I had the best results, I could wish for. These materials were cleanly, the flies disliked them, and several minor operations such as amputation of toes, together with the testicle case, were kept aseptic throughout; all wounds seemed to do well with them; the strips of lint soaked in carbolic oil were placed over the iodoform as it lay on the wound and with good effect. In cases of profuse discharge a powder composed as follows was very efficient in warding off flies: ℞ iodoform, ʒ1; zinci oxidi, 2℥; McDougall's powder, 2℥; this was sprinkled on the bedding and over the dressings, just inside the bandages. I have certainly come to the conclusion, as the result of my experience in this campaign, that the above antiseptic dressings, simple in themselves, together with great cleanliness and free use of carbolic acid, are almost, if not quite, sufficient in themselves for the local treatment of wounds in the field.

The three cases of camel bite in which operations were done, show ill effects of a bite from this animal on bone; these were the only cases in which the bone was injured and local death followed, in like manner the wounds made in the soft parts refused to heal, sloughs separating with profuse purulent discharges, the broad teeth of the animal crushing the tissues between them. In the tibia case the man was kept suspended in the air for over three minutes, at the end of which time the united blows of a dozen men forced the animal to relinquish his hold.

Bayonet wound.—Hoossain Abdii, No. 932, age 25 years, camel driver (Arab). Admitted on April 4th for bayonet wound received in a quarrel. The patient walked from the camp to the hospital, a distance of 200 yards without any symptoms of discomfort, on being examined by the apothecary on duty, he was detained in hospital more from the situation of the wound than from its apparent seriousness. On being examined he was found to have two small wounds 2 inches apart in the left arm, just over the body of the biceps connected with a passage running in a transverse direction, through which a gunshot probe could be passed with little difficulty, corresponding to the inner wound, when the arm was pressed against the chest, was a small wound in the mid-axillary line just below the 7th rib, apparently superficial. There were no chest symptons whatever, no coughing, hœmorrhage, emphysema, difficulty of breathing. These, together with a slight scalp wound, were dressed simply with wet lint and bandage. After remaining in the hospital some little time (about an hour) the patient absconded from the tent and went back to his own camp. After his arrival there he began to feel some difficulty in breathing, at the end of three hours from the time of the accident he was discovered, and again seen by an assistant, who found him dying from asphyxia. Post mortem 16 hours after death. The wounds described above little altered except for very slight emphysema around the wound in the chest, there was also a superficial scalp wound near the occiput. On probing, the chest wound seemed to be quite superficial, sloping downwards, its base resting on the 8th rib.

On opening the chest a large quantity of inoffensive air escaped from the left pleural cavity, and both lungs were found to be in a collapsed condition, occupying, on either side, one fifth of their proper space; in the left chest were found 4 ozs. of purple blood. The lower lobe of the left lung was found to be connected with the chest wall by old adhesions which could not be beaten down without tearing the organ, this lobe was found to have its upper margin penetrated by a wound of which the outer opening was well marked, giving a rough triangular appearance, with thickened rounded congested edges, and through which a large gunshot probe could be introduced with ease for a distance of 2 inches. Left bronchus was stained with blood but empty. Heart contracted, all its cavities being empty. Abdomen normal, diaphragme uninjured. On tracing the wound on the external surface of the chest it was found to pass down in a slanting direction to the eighth rib, passing through its lower border by a triangular opening, the two outer sides of the triangle being formed out of the rib, the lower also formed by bone, slightly separated from the main portion, this communicated directly with the pleural cavity. In this case, the reason for the absence of all lung symptoms is worthy of notice. Owing to the position of the adhesions the wound in the lung must have been firmly held within about ½ inch of that in the chest, and for the same reason kept patent; blood escaped into the cavity but not to a large extent, and probably at first stayed the passage of air by blocking up the wound, owing to the man's exertions the air began to find its way into the cavity, the fatal pumping action went on till first one and then the other lung felt its power, pressure within equalled pressure without (the chest walls no longer did their duty) and they collapsed. There was no hæmoptysis; the blood, till checked, found an easy exit; no cough; the bronchial tubes were not affected, and the irritation slight. At first there was no difficulty or pain in breathing for the adhesions kept the part fairly at rest.

2. *Fracture of the Dorsal Spine.*—M ——, belonging to the Transport Service, was brought in suffering from serious injury to the 5th, 6th, and 7th dorsal vertebra caused by a fall from a fig tree; the spinous processes, together with their laminæ, could be moved with a grating sound upon the bodies; there was complete loss of sensation and motion from the lower borders of the ribs downwards; there was also considerable injury situated deeply in the neck near the right angle of the lower jaw. Slight extension of the spine was tried with some relief and a little hope, a gutta percha splint 5 inches wide was applied, commencing at the upper end of the sacrum and passing well up to form a support to the head a stiff starch jacket supported the spine and chest.

The patient did fairly well for a week, at the end of that time he complained of a constricting pain around the lower part of the chest; the jacket had to be removed with the splint, the lower end of the sacrum began to get red (the patient was on an air cushion and every precaution was taken); now a fresh complication appeared in the neck, the tissues beneath and around the parotid gland became inflamed and painful. Fomentations were applied. The urine which had been drawn off from the commencement being slightly thick, the bladder was washed out with warm water. On the 10th day the redness over the sacrum had ended in an unmistakeable slough, to which charcoal poultices were applied. The neck still remaining the same an incision was made to relieve the tension. On the 13th day the man became much worse, and in order to relieve the severe constricting pain in chest and burning pain in neck, morphia was freely administered by hypodermic injection. The patient died exhausted, having suffered much pain on the 14th day.

Deaths show a very different per-centage on the strength in the three nationalities, Arabs 1·39, Europeans ·68, natives of India ·17. Highest with the Arabs, it becomes wonderfully small with the Indians. In analysing the causes of death we find them due to a comparatively limited number of diseases.

—	Europeans.	Arabs.	Indians.
Dysentery	—	1	5
Phthisis pulmonalis	—	1	1
Diarrhœa	—	1	—
Pneumonia	—	2	1
Congestion of liver	—	1	—
Ague	—	—	2
Remittent fever	—	—	1
Rheumatism	—	—	1
Ulcer	—	2	—
Burns	—	1	—
Bayonet wound	—	1	—
Contusion	1	—	—
	1	10	11

Two deaths, not mentioned in the above list were from fracture of the spine and compound fracture of femur respectively, the one occurring in a man (Englishman) belonging to the shipping, the other a prisoner of war, these are therefore not included in the death per-centage. As this was the base hospital and all cases were eventually received, if a few days did not suffice for their treatment in No. 1 field hospital, N.F.B.T., at

Handoub, the total strength has been taken, all but a few of the Europeans and Arabs were treated here and no other, but the deaths recorded occurred amongst them (from the time this hospital was established to the 5th June when they left for their homes). As for the Indians, whilst a considerable number were treated in No. 1 field hospital, N.F.B.T., as before stated, those that were likely to remain some time in hospital where sent on, as also serious cases if fit to travel. The total number of deaths at Handoub amounted to five, all Indians; this brings the death rate up to ·23 per cent. and still considerably under that of the European and Arabs. The large per-centage of deaths amongst the Arabs as compared with that of the Indians may be accounted for in several ways.

(*a.*) At first none came to hospital unless in an almost moribund condition; they stayed in their tents till hunted out and sent by their officers.
(*b.*) Overfeeding in men unused to much food and perhaps previously in want.
(*c.*) Past disease, such as pleurisy.

The one death from contusion (camel bite) amongst the Europeans, occurring in an interpreter, had already been noticed.

Of Arabs one death from pneumonia was complicated with an unhealthy ulcer of the lower extremity and one from ulcer with pneumonia. The other case of ulcer was very like cases of hospital gangrene. On admission, the day of the establishment of this hospital, the calves of either leg were completely eaten away, leaving the unhealthy base and sharp distinct edges of the latter disease, the patient died exhausted. *Under burns* is a death from a rocket explosion occurring in the Ordnance Store; the head, with arms and chest, were badly burnt, principally of the second degree; the patient died within 48 hours of shock and lung complication, the latter appearing a few hours before death. The bayonet wound is mentioned elsewhere.

Amongst the Indians, of the five deaths from dysentery, two were acute, and but a short time in hospital before death (two and six days), the remainder were chronic, and the patients were in a more or less emaciated condition on admission. Of the two cases of ague one became complicated with a low form of pneumonia, the other with an iliac abscess.

Invaliding.—There were 209 men invalided during the whole period; this number does not include 100 remaining in the hospital at the date of my return and taken by me to Bombay; these were, for the greater part, men that treatment would have, in a short time, returned to duty, but owing to the departure of the British troops their services were no longer required; however, of these it would have been found necessary to have invalided 42; this brings the total number of invalids to 251.

The following are the principal diseases for which these men were invalided:—

—	Europeans.	Arabs.	Indians.
Dysentery	—	—	34
Ague	1	1	18
Syphilis, primary	—	2	16
Bronchitis	—	1	14
Rheumatism	—	—	12
Wounds	—	5	10
Ulcers	—	12	8
Diarrhœa	—	—	6
Contusion	1	—	6
General debility	—	3	8
Pneumonia	—	1	6
Phthisis pulmonalis	1	—	8
Other diseases	3	8	66
	6	33	212

The per-centage to strength being, Europeans 2·16, Arabs 4·19, Indians 3·10. With the largest per-centage the Arabs will also be seen to have an excess of ulcer cases.

In despatching, advantage was taken of invalids who belonged to the Indian contingent returning, the men being put in charge of hospital assistants belonging to that force. Later on, when it was certain that the followers would not remain at Suakin, our own assistants and apothecaries were detailed for this duty.

AVERAGE Days in Hospital and Admissions per 1,000 Strength.

—	Europeans.	Arabs.	Indians.	If Indians treated at Handoub are added.
Average days in hospital	10·96	13·35	13·21	12·14
Average admissions in hospital	286·20	160·31	106·36	137·21

The 4th column shows the average given when the men treated at Handoub are added; as they were only kept there for a few days the number of days in hospital are naturally lessened whilst the number per 1,000 treated are increased; other trivial cases were treated by the hospital assistants in a tent supplied to each of the labourer corps. With few exceptions the whole of the Europeans and Arab followers were treated in this hospital.

In comparing the three nationalities together as to number admitted and days in hospital the result is curious, and yet to a certain extent capable of explanation. On referring to the return it will be seen that a large number of Europeans were admitted for trivial complaints, such as you would find amongst contusions, balanitis, boils, ulcers, simple diarrhœa, many cases of which would, in the case of natives of India, require only out-door relief and rest for a day or two, but in an European would become aggravated, either owing to their disregard of instructions or their less temperate habits; added to this the large amount of syphilis which was, I believe, in many cases brought with the men, and you will have the principal factors in explaining the above figures.

As in the deaths and invaliding, we are again confronted with figures adverse to the Arabs suffering from diseases, such as pneumonia, obstinate ulcers, congestion of the liver, conjunctivitis, ulcer of cornea, synovitis, general debility. The number of days in hospital are necessarily large. From comparison of figures and from personal experience of their stamina, tractability, moral and physical worth, amenity to medical treatment, I have not the least hesitation in saying that I consider the Arab far inferior to the native of India as a follower. With regard to the Europeans the numbers are too small to draw sound conclusions from, a strange mixture, and for that reason I think a mistake. Very little trouble seemed to have been taken in their selection.

The out-patient department was at first directly under the medical officer; but after some time it was found, owing to other important duties, impossible to see each one personally; a trustworthy apothecary, with two hospital assistants to help him, was therefore put in charge, all doubtful cases, whether for admission or otherwise, being referred to the medical officer; this plan worked very satisfactorily. The number of out-patients treated at the hospital were 72 Europeans, 116 Arabs, 1,042 natives of India; and in addition 42 Arabs and 558 natives of India by a hospital assistant at the camel zariba, to which place he was despatched daily with a supply of medicines, and any cases that required more than simple treatment were at once sent by doolie to the hospital. The hospital assistants attached to the labourer corps did similar work. In addition Captain Cather's corps had been supplied, before leaving India, with panniers and petarrahs, one dandy, and a tent for treating slight cases. Filled petarrahs were supplied at the wish of the Principal Medical Officer, base, British forces, from this hospital for the use of Captain Constable's corps.

Books, &c., kept for information and reference. Diary used also as order book, letter book (there was a considerable amount of correspondence, 320 letters were entered), registers of invaliding. In and out patients, duty, medical comforts, rations, pay of establishments, requisitions, and despatches, together with the usual case and admission and discharge books.

Returns furnished.—Morning state to Principal Medical Officer, base and headquarters; weekly return to Principal Medical Officer, base; a weekly state to the Director of Transport, British troops, to the officers commanding labourers corps, and to the officer commanding Arabs and Europeans; weekly casualty report to Principal Medical Officer, base and headquarters; special casualty to officer commanding Principal Medical Officer, base and headquarters, when necessary.

Re-embarkation.—The supply of medical comforts and medicines were arranged from this office, the petarrahs and boxes in which the medical comforts were sent from Bombay being used as receptacles. As the followers left apothecaries and hospital assistants were sent in charge, and towards the last, July 5th, the medical officer of No. 2 field hospital, N.F.B.T., with the tent equipage of the two hospitals, the medical stores, and furniture of his own, together with part of his establishment, returned to Bombay in the S.S. "Dacca," taking with him the whole of his sick, and that of No. 1 field hospital, N.F.B.T., together with 120 belonging to the Indian contingent; the medicine boxes and furniture of No. 1 field hospital, N.F.B.T., Surgeon Hudson detained for the treatment of the remaining followers, 4 E.P. tents being supplied from the British Ordnance stores for the same purpose.

Remarks.—As I believe this is the first time that the followers have been treated in hospitals, provided especially for them, the foregoing notes may have some amount of interest.

The followers themselves liked the idea of having a hospital of their own, where they could enjoy the society and services of their friends, with the undivided attention of the assistants, who are very liable, perhaps without intention, to neglect the followers somewhat for his supposed superior, the sepoy.

For the greater part of the time the hospital was under the direct supervision of the Principal Medical Officer, base (Deputy Surgeon-General G. L. Hinde, medical staff), whose kindly help did a great deal to forward the working of the hospital.

On my arrival, 14th July 1885, at Bombay, in medical charge of S.S. "Dacca," carrying invalids 261 (sepoys 106, followers 155), and followers 700, with No. 2 field hospital, native followers, British troops, I delivered into stores the hospital equipment of this hospital with the tents of two field hospitals (Nos. 1 and 2, N.F.B.T.).

APPENDIX No. IV.

NOTES ON EQUIPMENT, &c. TAKEN DURING ACTIVE SERVICE IN THE NEIGHBOURHOOD OF SUAKIN.

By Surgeon-Major J. Fleming, M.D., M.S.

Tents.

The best form and material for tents, consistent with lightness, portability, &c. for an army in the field (hospital purposes, &c.) may still form useful subjects for investigation. It is surprising to find how diversified tents are in the different armies in the world, although the conditions which necessitate them are very similar. However, to make a tent to fulfil the varying conditions of shelter from the sun and inclemency of the weather, and yet at the same time to be fairly portable, is not by any means an easy problem.

During the last Afghan war, I made some experiments in the hot season with a view to find out the coolest form of tent as indicated by the thermometer at different periods of the day.

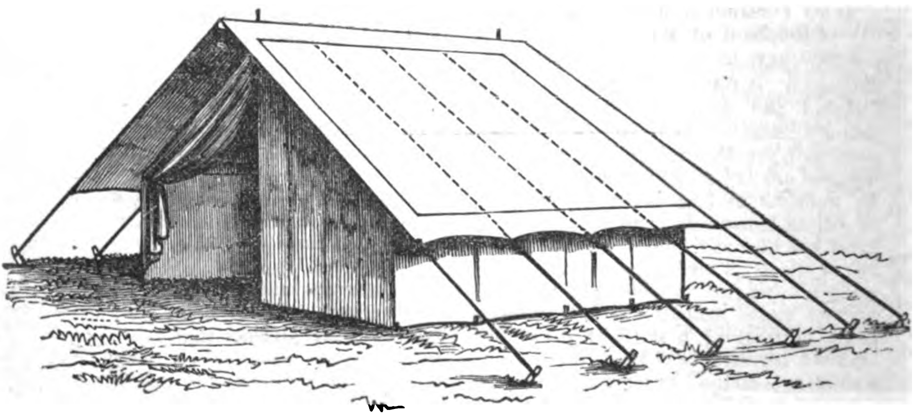
Of the several varieties in use in the force, I found, as a rule, that those with *through* ventilation were always the coolest. In consequence, and at my recommendation, the general commanding sanctioned considerable alterations in many of the tents, especially the Madras pals, which have one end entirely closed.

Bell tents.

Of the various forms of tent in use in the British Army, either at home or abroad, perhaps the very worst as regards healthfulness, is the bell tent. This is owing to its construction, and the difficulty in ventilating it, especially in hot climates, where *through* ventilation is so necessary. During the late expedition to Suakim, and especially in McNeill's zareba, I found that the best protection from the sun was afforded by joining the walls of the Indian pattern tents so as to form a flat roof, and then raising this on poles 8 or 9 feet from the ground. This construction, similar in principle to the Indian *Shamiana*, was found to be cool and airy, and well adapted for the treatment of sick and wounded.

Ridge pole tents.

In my opinion, the best form of tent and the most suitable for field service in any climate is the ridge pole double fly tent, of a shape similar to those known as the Cabul pattern tents, and with few modifications used by sportsmen, emigrants, &c., throughout the world. They can be easily made for holding two, four, or six sick or wounded, or for double that number of men in health. Should there be any doubt about the sort of tent I refer to, the illustration below will show the general plan of it:



How can the ordinary regulation bell tent be improved? I do not think it can be improved in any other way better than by having another door made in it directly opposite to the existing one, and which could be easily closed or opened as circumstances required.

To improve bell tents.

There was considerable inconvenience and often delay in fastening and unfastening the deal packing cases, canteens, &c. &c., in which most of the hospital equipment was placed. This was owing to the wear, tear, and toil of screwing and unscrewing the lids, especially by unskilful hands.

Packing cases.

It was of constant occurrence to have screws breaking or bending, or to lose them in the sand.

There was great want felt for packing cases which could be readily opened and closed, something in the form of the medical panniers, and which could be easily strapped on mules or camels. It would be convenient (and even for the sake of uniformity) to have the packing cases similar in size, of the same weight, or as near as possible when packed, and with strong rope handles. They certainly ought to have lids with hinges and locks of some sort, and if made of strong basket work with a good tin lining, might be lighter and more serviceable than those now in use.

Canteens, &c.

The large operating lamp was found to be very serviceable. It gave a good strong, steady, yellow light when well trimmed, and appeared to be properly constructed as regards strength and mechanical arrangement of parts. If it would admit of a circular burner, no doubt it would then give a better light for operations.

Lamps, operating.

The smaller bulls eye lamp did not please me. I found the light was not strong enough. I think that if these lamps were half as large again, they would be more serviceable.

Small bull's eye lamp.

A lamp burning a mineral oil would give a whiter and better light; but then the mineral oil would be more dangerous in store and to carry, because more inflammable than vegetable oil.

Mineral oil.

It happened that in the night of the 22nd of March (the battle of Tofrek, McNeill's zeriba) only one oil can containing a few pounds of colza oil was available out of three supplied in the canteen of the right half of No. 2 field hospital. On examination, both of the remaining oil cans were found to be empty. One was perforated by a bullet during the fight. The other had the screwed cap off by some means or other, and the chain holding the cap to the can was broken.

The battle of Tofrek, McNeill's zereba.

The chain which attaches the cap to the can ought to be solid, *i.e.*, each link ought to be brazed or welded, and have a breaking strain of not less than 80 or 90 lbs. A chain made of links composed of thin bent wire is necessarily weak and easily broken.

Caps for oil cans.

Chains.

Surgical Equipment.

I would like to suggest that each surgeon on field service should have readily available several artery forceps, such as those used by Sir Spencer Wells, &c. for controlling hœmorrhage during surgical operations. During the battle of the 22nd of March and of subsequent surgical operations, such forceps would have been of great assistance to me.

Sir Spencer Wells' artery forceps.

I think that in warfare against barbarians or semi-barbarous tribes the medical staff ought to carry arms and be capable of defending themselves. The short sword with which they are now armed, is an inadequate protection. A good large bore revolver would be of service to some men provided they had long practice at a mark beforehand.

Savage warfare.

Arms for the medical staff.

Generally speaking, I think the ordinary Martini carbine with sword bayonet to fit, is perhaps the best weapon. Better aim could be taken with it than with a revolver, and buckshot cartridges could be supplied and used when necessary.

The Martini carbine.

The result of the action of the 22nd of March (when the right half of No. 2 field hospital lost two killed and four wounded) would surely seem to show that the men ought to be provided with a better means of self defence than that afforded by a short sword.

APPENDIX No. V.

CASE OF LIEUTENANT T——, 10th Bengal Cavalry, aged 24 years, who died at Mussoorie on the 28th September 1885 from Hydrophobia.

By Surgeon P. J. **Freyer**, Indian Medical Service, Civil Surgeon, Mussoorie.

On the 27th September, I was summoned to see Lieutenant T——, of the 10th B.C., on leave at Mussoorie, who, it was alleged, had been suffering from fever for the previous two or three days. I saw him at 6.30 p.m. that day. His temperature was normal then, his pulse somewhat rapid and weak, he was bathed in cold perspiration, and seemed nervous and depressed. He stated that he had had fever during the whole of the day, and that he was then in the sweating stage; and from the general symptoms, I had no reason to suspect otherwise. There was one symptom, however, which I noticed at the time as peculiar. Whilst speaking to the patient, he suddenly sat up on the couch on which he was lying, and complained of a peculiar sensation as if the upper part of his chest was being compressed. I examined his lungs and heart and found them normal. I concluded that the sensation complained of was due to some cerebro-spinal irritation, such as one sometimes meets with in malarial fevers. He also complained of sleeplessness. He made light of his illness, and stated that it was only in deference to his wife's wish that he allowed my being sent for. I prescribed the usual remedies for intermittent fever. He had some quinine pills by him, each containing three grains, and I saw him take two of these. He swallowed them dry not using any liquid to wash them down, I remember his remarking that he preferred taking them without any fluid. *There was then no difficulty in swallowing the pills.*

At 5 o'clock next morning, I had the following note from Mr. T——: " It has just occurred to me that I may have hydrophobia, as I can't touch " water. I was bitten by a mad pup about 2½ years ago at Agra, in the right " hand. My right arm pained me a few days ago for no apparent reason." I went at once to see him, arriving half an hour later. I then found him suffering from all the symptoms of well marked hydrophobia.

The patient was lying in bed, bathed in cold clammy perspiration. His pulse was very weak and rapid. He was extremely depressed and very restless. His eyes were sunken, wild, and unnatural. Anxiety, distress, excitement, and terror were depicted on his countenance. He was extremely nervous, disturbed by any sound or movement. The characteristic paroxysms of laryngeal spasm were well marked, and recurred frequently. These set in with a shivering of the body, which gradually increased in intensity, till the whole frame became violently agitated. The patient suddenly sprung from the lying into the sitting position, with his head bent on his chest, gasping for breath and foaming at the mouth, or he clutched the bed-head rail and struggled violently with the spasm. He spat out viscid mucus which accumulated in the throat and mouth. The spasms were accompanied by the peculiar dry hoarse sonorous cough, which is popularly regarded as resembling the barking of a dog, but to which it has no real resemblance. It is produced by the attempt to get rid of the accumulated mucus in the throat by coughing, all the above symptoms gradually increased in intensity till they reached a climax, that was distressing to behold, and then gradually subsided, till the patient fell back in bed, exhausted, trembling, and bathed in perspiration.

These paroxysms of suffocation, were produced by any attempt to swallow either food or drink, even the suggestion that he should swallow anything was sufficient to bring them on; and he therefore entreated that no attempts to make him swallow medicine should be made, as they would be both useless and injurious The paroxysms were induced by various external influences such as the sight or sound of water and sudden movement of persons in the room, the rustling of a dress, the creaking of boots, the opening or shutting of a door, a current of air, or rays of light. For instance, as the sun rose in the morning the rays of bright light suddenly passed into the room, through a skylight, and this was sufficient to induce a spasm. Again, he heard the noise of the *bhisti* (water carrier) pouring water from his *mushuck* (water bag) outside, and this brought on a violent paroxysm. On one occasion he complained of a desire to pass urine, but when the chamber utensil was brought to him he was unable to micturate, and a paroxysm was induced. He subsequently passed urine involuntarily in the bed. The paroxysms of suffocation also came on spontaneously.

The patient was nervous in the extreme, so much so that he could not bear anyone to approach near the bed in which he was lying. It was with the greatest difficulty I managed to feel his pulse and administer medicines hypodermically. The fearful paroxysms of suffocation, accompanied, as they were, by the sudden springing up in bed, were sufficient to unnerve the strongest man, and would, to the unprofessional mind, give the impression that the patient was a violent maniac. But there was no violence exhibited. The patient was rational till shortly before his death. He spoke sensibly about his affairs, recognised the fact that there was no prospect of his recovery, and met his fate with fortitude. There was no delirium or incoherency. He repeatedly assured me that there was no actual pain merely the distressing symptoms connected with the disease.

He spoke about his case; he said that 2½ years ago, he, amongst others, had been bitten by a pup which subsequently died mad. I have since ascertained that he was incorrect as to the period that had elapsed since he had been bitten. It was 1½ years, and not 2½ as stated by the patient. The wounds were not cauterised at the time, as the pup was not supposed to be mad. For sometime after he had a dread of hydrophobia, but latterly, for months the idea had completely vanished from his mind. He now remembered that the present attack had commenced 3 days before with pain in the thumb and forefinger that had been bitten. He noticed to his wife at the time, that he could not hold his pen to write. This pain passed up the arm and fixed itself in the right shoulder for a time, and there was numbness of the whole right upper limb; this he thought was merely rheumatism. These symptoms were followed by slight fever, with lassitude, weakness, distaste for food and drink. But it was not till the early morning of the 28th, the day on which he died, that the awful reality flashed through his mind, when he found that he could not swallow fluids.

The paroxysms, already described, at first increased in frequency and violence each leaving him more and more exhausted; but about noon they began to diminish in frequency and force and he died of exhaustion at about 5 p.m.

I had the advantage of seeing several medical officers in consultation during the course of the day. They all recognised the hopeless state of the patient. It is only when one is placed face to face with a case of this dire disease that one recognises the inutility of any drug to stay its fearful course. During the day hypodermic injections of morphia in doses of ⅓ to ½ grain were administered every two hours or so, and to one dose was added $\frac{1}{60}$ grain of atropine. These had the effect of greatly calming the nervous symptoms and allaying the violence of the spasms. This case involves several points of peculiar, though melancholy, interest.

1. The unusual length of the period of incubation. The statement of the patient that the bite had been contracted 2½ years previously was incorrect. I have made inquiries on this point and find that he was bitten at Agra, in the end of March 1884. This is clear from the statements of his connexions, and that of an officer of the 29th Native Infantry to which regiment he then belonged, the period of incubation was therefore 1½ years; the ordinary period of incubation in this disease varies from 3 to 6 weeks, and authors distrust the accuracy of statements in cases when the disease is alleged to have occurred at lengthened periods after a bite from a rabid animal has been contracted, and think that the disease is confounded with tetanus, and other nervous diseases which have some resemblance to hydrophobia.

2. That this was an undoubted case of hydrophobia, however, there can be no question. I have seen several cases of hydrophobia myself; and all the medical officers that saw this case had no hesitation in at once pronouncing it

hydrophobia. Indeed, there was not one typical symptom of that fearful disease absent in this case.

3. It is sometimes argued that nervous symptoms resembling those of hydrophobia may be induced by fear after a person has been bitten by a rabid animal, and that these symptoms may actually prove fatal through the shock to the nervous system. No such argument can apply in this instance, the history of the case shows that all fear of hydrophobia supervening had passed away, and that the patient had for three days been suffering from the premonitory symptoms of the disease without any suspicion of its existence entering his mind. It is with a view to make this point clear, that I have sketched the history of this case in a somewhat irregular fashion, and not in accordance with the natural sequence of these symptoms.

4. The most important point, however, connected with this case is fortunately of a practical nature, and one to which I desire to call especial attention. The history of this case tends undoubtedly to prove that the poison received from the bite of a rabid animal, does not as in the case of snake poisoning rapidly invade the system, but remains localised at the seat of injury for an indefinite period; and, maturing there by some peculiar process, suddenly, after the lapse of days, weeks, months, or years, invades the system. On no other theory can we explain the fact that the first symptom in the actual development of the disease was pain in the seat of the bite. The fact that the patient had no suspicion as to the nature of the pain or of the premonitory symptoms, that he did not recognise the fact that he was suffering from hydrophobia till the symptoms were fully developed, is of very great importance; otherwise it might be argued that the pain was the result of imagination. What the nature of the local process by which the poison is developed (whether fermentative, cystic, or otherwise), and subsequently enters the circulation, it is not for me to enter on here, all I contend for is, that the history of this case goes to prove that the poison remains localised for a period which varies in different individuals. Assuming the theory to be correct, what practical lesson are we taught by it? That free removal or free destruction of the part bitten by excision or caustics, or both, should be had recourse to. For this purpose when a person has been bitten by a rabid animal the fleshy parts around the bite should be excised freely as soon as possible, care being taken that the excision should extend beyond the parts touched by the teeth of the animal. Should a surgeon not be at hand, lunar caustic, a live coal, or a hot iron, should be freely applied to the parts so as to destroy the tissues around the bite. In all cases of bites from animals even when no suspicion of *rabies* exists cauterisation should be had recourse to. Should these precautions not have been adopted at the time, or soon after the bite, the cicatrix and surrounding tissues should be excised subsequently, should it be known or suspected that the animal had been suffering from hydrophobia. I believe there are sufficient reasons to suppose that had such excision been had recourse to in the case under review even shortly before the active symptoms set in, the disease would never have developed itself. The lessons taught by this and similar cases should be brought home to the multitude. I believe if the measures proposed (which are not new) were more generally adopted a great saving of life would result. When once the active symptoms of the disease are developed the result is necessarily fatal.

APPENDIX VI.

REPORT ON SOME ANOMALOUS CASES OF FEVER.

By JAMES MAGILL, M.D., Surgeon, Coldstream Guards.

In the new Nomenclature of Diseases (1885), "simple continued fever" is defined as "continued fever having no obvious distinguishing character" (variety, Febricula).

The subject selected by the Medical Society of London for its "Dissertation" is "The Nature of Fevers (usually termed in this country Febricula), simple, compound, and modified typhoid."

The cases, the notes of which follow, I have classed as "simple continued fever," though they present certain resemblances to the modified typhoid of the preceding paragraph.

I have inserted only their leading features, especially those bearing on the point in question, viz., the enteric or the non-enteric nature of the disease.

All the patients came into hospital about the same time, but were from different parts of barracks, no two from the same room; and no similar case has since occurred.

Sanitary precautions were taken from the first.

Dr. Campbell, of the Caterham Asylum, saw the cases in consultation, and did not consider them to be typhoid fever.

A brief resumé will be found at the end.

No. 6552.—Recruit T. G., Coldstream Guards, was admitted to hospital on August 28th, with the symptoms of severe catarrh.

September 6th. When apparently convalescent, his temperature suddenly rose, and his tongue became thickly coated. He had no rigors, nor diarrhœa.

September 7th. He had slight pain in the left iliac region; but no gurgling nor tympanitis.

September 9th. Bowels obstinately confined.

September 11th. He still has some uneasiness in the left side of the abdomen.

September 17th. No tenderness on pressure.

September 22nd. He had an attack of dirrahœa, the first since the beginning of his illness.

September 26th. Medicine omitted.

October 2nd. Convalescent.

Note.—This man had not a typhoid tongue at any time, nor gurgling, tympanites, hæmorrhage, spots, nor diarrhœa (except one day); but he had a high and variable temperature for some three weeks, and now and again there was tenderness in the left iliac region. In general his bowels were obstinately constipated.

No. 6467.—Recruit W. P., Coldstream Guards, was admitted to hospital, August 29th, with severe tonsillitis.

September 6th. The throat symptoms had almost disappeared, when suddenly his pulse and temperature rose, and his tongue became dry and brown.

September 7th. Tongue dry, no diarrhœa, no tenderness.

September 9th. Bowels constipated.

September 11th. No abdominal symptoms.

September 14th. A few suspicious spots on the chest, none elsewhere.

September 18th. Medicine omitted.

September 21st. Allowed up.

September 24th. Convalescent.

Note.—In this case there was obstinate constipation, a high temperature, and a few questionable spots (on one occasion), and a dry and brown tongue but no gurgling, diarrhœa, hæmorrhage, nor tympanitis.

No. 6540. Recruit T. M., Coldstream Guards, was admitted on September 8th from under canvas.

He complained of diarrhœa, his tongue was clean.

September 10th. Diarrhœa continuous.

September 11th. Skin and tongue dry.

September 12th. Diarrhœa stopped, no abdominal tenderness.

September 15th. A few suspicious spots on chest, none on abdomen.

September 17th. No abdominal symptoms.

September 21st. Allowed up.

September 26th. Medicine omitted.

September 28th. Convalescent.

Note.—Here there was diarrhœa for several days at the outset of the illness, but not of an enteric character.

He never had any abdominal tenderness, nor hæmorrhage.

On one occasion there were a few spots on the chest.

No. 6812.—Recruit W. B., Scots Guards, was admitted on September 1st. Though one of the earliest, and possibly the main feature in this case was pleurisy, there are many points of similarity between it and those preceding.

September 10th. He had some spots on the chest.

September 11th. Slight abdominal pain in the iliac regions, but no gurgling. His bowels were constipated. There was a sudden accession of pleuritic inflammation.

September 14th. Some spots on the chest.

September 15th. Phlegmasia dolens of the right thigh; constipation.

September 18th. Swelling of thigh decreasing.

September 24th. Left thigh beginning to enlarge.

September 26th. Slight swelling of superficial abdominal veins.

September 27th. A sudden ries in temperature without any apparent cause.

October 1st. The swelling of the thigh has almost gone.

October 3rd. He is allowed up.

October 5th. Progressing favourably.

Note.—In this case there were to my mind clear evidences of some low form of blood poison, and I regard the pleurisy (of both sides) and the phlegmasia dolnes as arising from the same source.

REMARKS.—Each of these men suffered from a continued fever, which presented no crisis, and lasted about three weeks.

In three, there was a distinct period of incubation, or rather of preliminary illness

In three, also, there was obstinate constipation.

In two, there was tenderness in the left iliac region.

None had typhoid stools, tympanitis, gurgling, nor hæmorrhage.

The tongue never presented the red at the tip-and-edge appearance.

None had albuminaria, nor head symptoms.

In each case the pulse was better than the temperature would have led one to expect.

Three had suspicious spots on the chest, none on the abdomen.

The temperature charts are peculiar, but not characteristic of any recognised fever; at times rather resembling in the difference between the morning and evening readings, some mild form of septicæmia.

Treatment, by a diet of milk, eggs, and beef tea, with full doses of quinine to reduce the fever, and opium at times.

In three cases, the bowels were always opened by enemata, and the discharges disinfected.

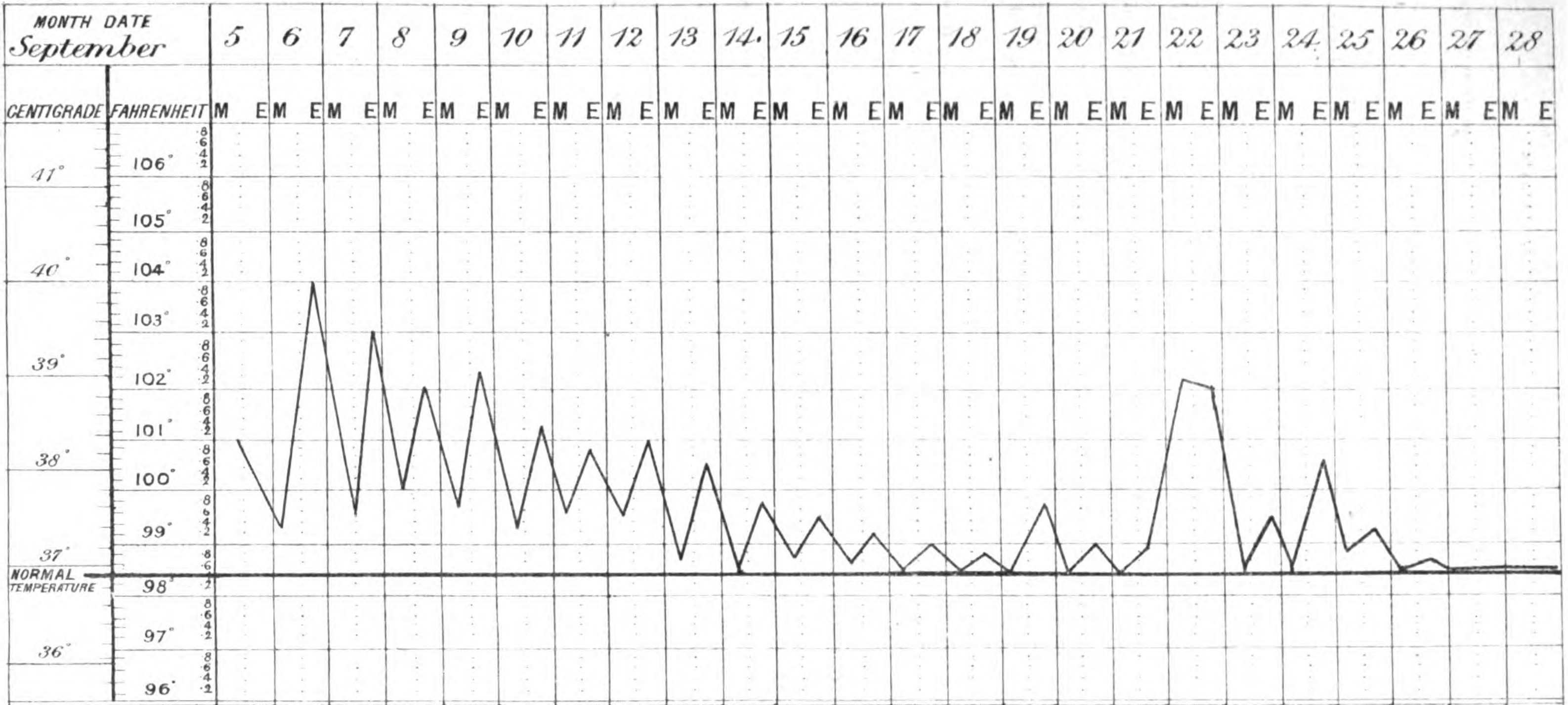
On the whole, then, I am of opinion that these cases cannot be classed as genuine enteric fever, but rather as "continued fever having no obvious distinguishing character."

No. 6552.

RECORDS OF TEMPERATURE PULSE AND EXCRETA.

Name Recruit T.G   Age 22.   Disease S.C Fever

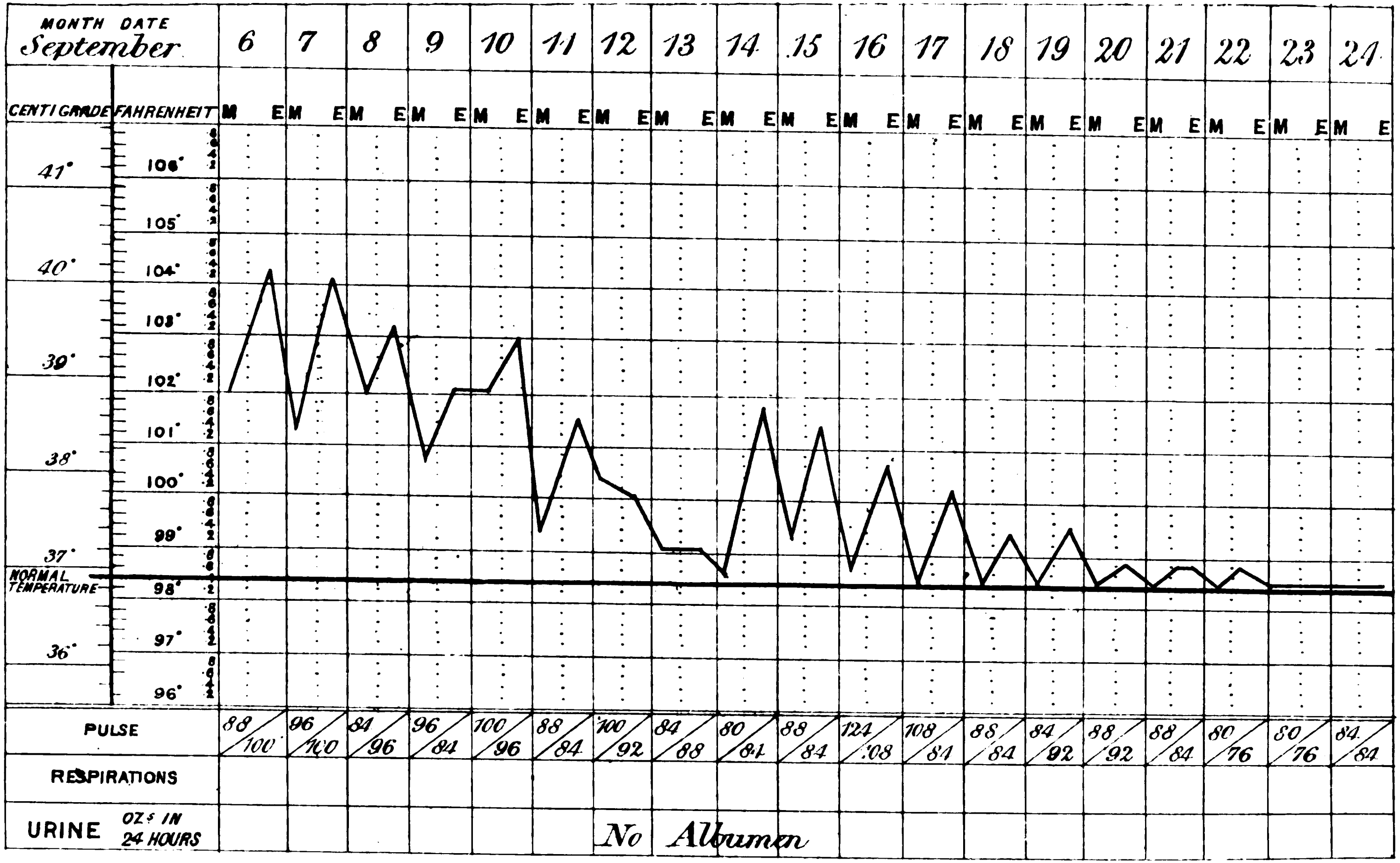
1885.   Coldstream Guards   Time on the Station. 4 months



	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
PULSE	/96	80/90	78/88	76/80	76/92	80/88	76/96	74/84	80/100	84/80	80/76	84/84	84/80	84/88	80/76	76/92	92/76	124/104	102/80	96/92	100/80	96/80	84/84	
RESPIRATIONS																								
URINE OZS. IN 24 HOURS									No Albumen															
REACTION OF																								

RECORDS OF TEMPERATURE, AND PULSE.

No. 6467
Name Recruit W P   Age 20   Disease S. C. Fever
1885   Coldstream Guards.   Time on the Station. 3 months.

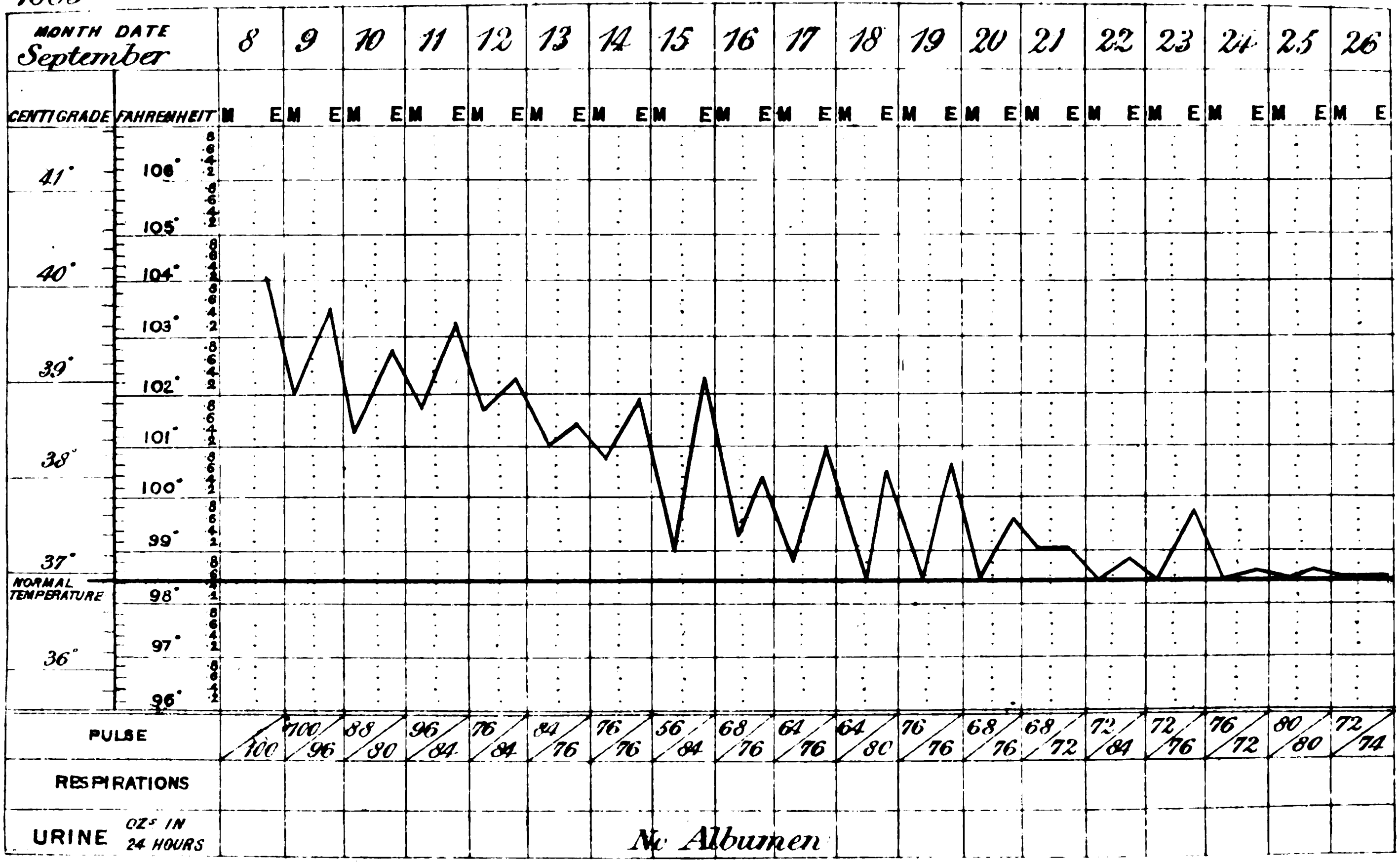


No 6540

RECORDS OF TEMPERATURE, AND PULSE.

Name Recruit T. M. Age 21. Disease S. C. Fever

1885 Coldstream Guards Time on the Station, 5 months.



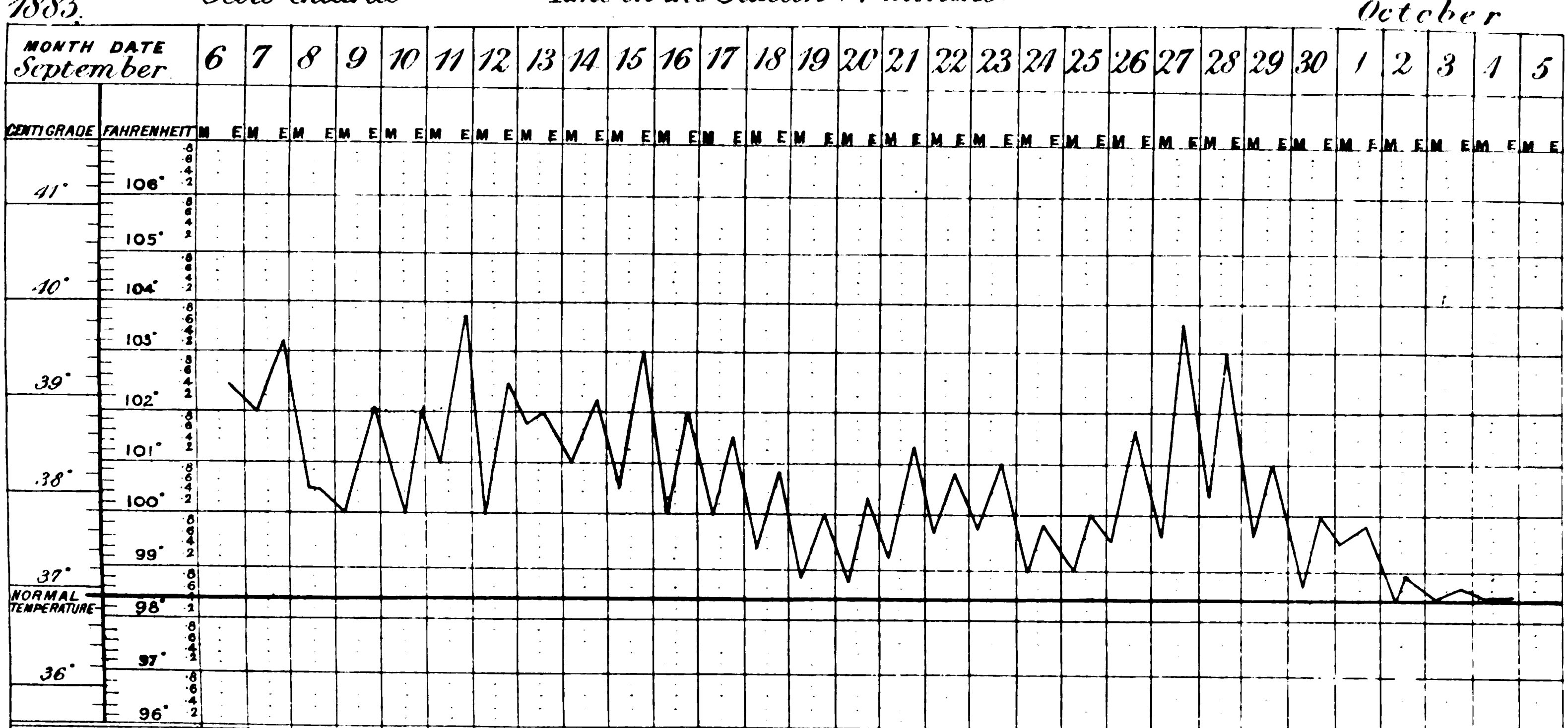
DANGERFIELD, LITH. 22, BEDFORD ST COVENT GARDEN. 12.85 11077

No. 6812.

RECORDS OF TEMPERATURE, PULSE AND EXCRETA.

Name Recruit W. B Age 20 Disease Pleurisy (S. C Fever?) Result

1885. Scots Guards Time on the Station 4 months



MONTH DATE	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5
PULSE	/110	100/116	84/100	100/104	100/100	108/116	104/104	112/108	116/104	120/124	108/108	116/104	104/100	108/104	104/104	104/120	112/116	112/116	116/104	116/120	120/104	112/120	122/126	104/116	96/84	88/96	104/92	108/108	104/84	
RESPIRATIONS																														
URINE OZS IN 24 HOURS										No Albumen																				

Vangerfield, Lith 22 Bedford St. Covent Garden. 12.85. 11677

APPENDIX VII.

REPORT ON THE HOSPITAL SHIP "GANGES," FEBRUARY TO SEPTEMBER, 1885.

By Brigade Surgeon G. C. **Gribbon**, M.B., M.S.

This Report consists (1) of the arrangements carried out on the "Ganges," to fit her for service as a hospital ship, (2) of the work performed during her employment as such, and (3) some observations on hospital ships in general, suggested by my experience.

The "Ganges" chartered and fitted out.

When a second expedition to Souakim was decided on in January 1885, the P. and O. Company's steamer "Ganges" was selected to act as an hospital ship to the expeditionary force. So rapidly pushed on were the requisite structural alterations and additions, including the removal of nearly all the first and second class passengers' cabins, insertion of additional ventilating shafts, fitting up a large Normandy condenser, &c., &c., that she was ready for sea 12 days after date of her being chartered by Government. Keeping in mind the shortness of the interval, it is surprising how well, as this Report will show, all the arrangements fulfilled their purpose, and how the capabilities of the "Ganges" for a hospital ship were all taken advantage of to the utmost extent.

No general description of the vessel will be attempted here, but only of the portions relating to the hospital which was formed on board.

General description

The "Ganges" is one of the new steel vessels of the Company, in size 4,200 tons, and 4,000 horse power, 390 feet long, and 42¼ in beam. She is without poop or forecastle and has a hurricane deck occupying the middle third of her length. Below the upper deck on which this hurricane deck is superimposed is the main deck, next to which is the lower, and below this are the holds, coal bunkers, &c.

of the upper deck.

Beginning my description of the parts allocated to the hospital from above, the first class cabins under the after part of the hurricane deck were allotted to the medical staff. Those forward were in the occupation of the officers of the ship, and these were not disturbed, but the two cabins most forward on the starboard side were converted into, one, a hospital office, and the other a laundry, which was fitted up with a vowel washing machine.

Hurricane deck.

The roof of all these, that is, the hurricane deck itself, which is about 41 yards long, made a very good lounging place for the convalescents. One side was always protected from the weather by the machinery, and there was a good supply of easy chairs, so that it answered admirably the use it was put to.

Quarter deck.

The quarter deck, about the same length, had beneath it the saloon and officers' wards, and was naturally the place for convalescent officers.

On the upper deck forward was, on one side, a large latrine and urinal for convalescents with constant flow of water, and on the other a sloproom for emptying and cleaning utensils brought from the lower deck, which had no water-closets.

The masts of the "Ganges," three in number, are hollow and connected for ventilation with the holds and coal bunkers.

The main deck.
Officers' wards.

The main deck from floor to roof is 7¾ feet. Along each side at intervals of 8 feet are large square ports (2 × 2). In its after part were the officers' wards and nursing sisters' quarters. The wards were of small size holding four cots each. The superficial area to each cot was 61 feet. The cots were similar to those in the men's wards, which will be presently described.

Saloon.

Passing from these forward one entered the saloon—a large, handsomely decorated one, occupying the whole breadth of the ship; next to this were the

Convalescents' cabins.
The "main deck" or upper ward.

pantries, and on the port side six first class passengers' cabins which had been been left standing for the accommodation of officers when they became convalescent. Going forward one came at once into the "main deck ward." The accompanying plan will make the relative position of all these plainer than any verbal description. It will be noticed what a large space, and in the best part of the ship, is taken up by machinery, as in all steamers having powerful engines and intended to be very fast. There were 43 cots in this ward with floor space of 61 feet and cubic space of 427 feet to each. This proved sufficient, as no form of "hospitalism" ever manifested itself at any time in the ship.

For the sake of comparison I quote the allowance on the "Victor Emmanuel." It was 44 superficial and 444 cubic feet.

The cots.

The cots were of iron in rows 2½ feet apart, each swung on two stout iron staunchions, which were 2 feet high and fixed firmly to the deck. An iron catch which can be unshipped renders them fixed. During the six months employment of the "Ganges" it was only once necessary to unship this to enable the cots to swing, so fine was the weather enjoyed throughout at sea. Sixteen of the cots were of a larger size with sides that could be let down, suitable for cases of fracture, &c.

All were furnished with square openings or traps such as would be useful in cases of dysentery and the like. The floor, sides, and roof of the wards and the cots were painted of a very delicate green, which softened the glare and was pleasing to the eye.

Punkahs and mosquito netting.
The punkah coolies.

Mosquito frames and netting, and punkahs were supplied for all the wards. Only a few of the former were used, but the punkahs were a great boon—most invaluable in the hot, still nights in Souakim harbour. Twelve coolies were brought from Bombay and acted as pullers, but when the weather was oppressive they went to sleep over their work. It would be a great improvement to have punkahs pulled by steam. The pulling might be somewhat jerky but it could be relied on. In the forward part of the ward were the lavatory, scullery, baths, closets, and a nurses' kitchen, which was a small closet, with steam laid on, where soups, &c., could be quickly heated at all hours.

Nurses' kitchen.

Operation room.
Dispensary.

Also at one side of the ward was a well lighted enclosure fitted up as an operation room, which fulfilled its purpose admirably. Corresponding to it on the other side was the dispensary, arranged by Messrs. Savory and Moore in the most complete manner.

Ventilation of upper ward.

The ventilation of this ward was undoubtedly good. It had, in the first place, good fore and aft ventilation, then lateral by 18 ports, each 2 feet square and two large "gangway" ports. These were all open unless the weather was rough.

In addition, as roof ventilation, there were the main hatch skylight and the "skid" skylights along the machinery enclosure which opened above on the hurricane deck.

These latter were a very powerful means of ventilation and had to be attended to on account of liability to cause draughts. They are analogous to the ridge ventilation which was found so efficient on the "Victor Emmanuel."

Lower deck.
The lower ward.

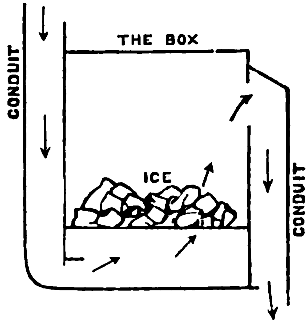
Passing down to the lower deck, by reference to the plan two wards will be observed, one the lower ward directly under the upper ward just noticed, and the other aft of this and separated from it by the engines, called the after or convalescent ward. The former of these was entered from the main hatch, which also afforded both light and ventilation.

Its accommodation.
Its disadvantages.

It had 38 cots of a kind like those in the ward above, and the superficial and cubic allowance was similar also. It, however, had the disadvantage of being a little below the water line so that waterclosets, or any means of getting rid of slops directly were impracticable. It was lighted by scuttles rather dimly, and these could not be opened unless the sea was very calm.

Lower deck.
Artificial ventilation.
Fans.
Rate of delivery.

This, and the want of fore and aft ventilation, made the ward less airy than the one above, but this defect was completely remedied by the introduction of conduits which passed round the ward on a level with the floor. These conduits had small square openings every few feet and led from the upper deck where the air was driven into them by fans—the form of Desa ulier fan manufactured by Messrs. MacWhirtes. Between 9,000 and 10,000 cubic feet were delivered into the ward per minute. This amount was ample, and being admitted all round the sides effected a thorough and constant renewal of the air. The "freshness" of the ward was frequently commented upon. In addition there was an arrangement for cooling the ingoing air. The conduit in passing down through the main hatch entered a large box, on which was a shelf to receive ice. The air entered from below, passed up through the pieces of ice and made its exit above whence it passed to the ward. I will advert to the working of this arrangement further on.



The arrangement for cooling the air.

Lower ward.

Regarding the outlets for the ventilation of this ward, the main hatch, 18 feet by 12 feet, was the principal one and it was found to be very efficient. Two of the Edmond's exhausting shafts were fitted up and a steam jet placed in the cowl above. This greatly increased the extracting power and I consider they were very efficient.

Its ventilation.

The Edmond's extractor.

On the same deck as this ward and forward were the quarters of the detachment of the Medical Staff Corps serving on board. It was entered through the fore hatch. Portions of it were enclosed off as a small lunatic ward and a cell for prisoners (which had only once to be made use of).

Quarters of the Medical Staff Corps.

The space on the lower deck occupied by the after or convalescent ward corresponded to the saloon and officers' wards above. It could accommodate 60 cots with 60 superficial and 420 cubic feet to each, or 107 hammocks. There were no fixed iron cots as in the other wards; here they were the usual canvas ones and put up as required, or hammocks were used instead when the convalescents grew strong enough to get into them. Access to it was through the after hatch.

The after or convalescent ward.

Its accommodation.

Ventilation was provided for it as follows: A double set of fans delivered 13,000 feet of air per minute. A large windsail passed down the after hatch also sent in a powerful current of air. As outlets two large shafts passed upwards, one through the saloon and the other through the officers' wards. Two of Edmond's shafts ran along the roof one on each side.

Its ventilation.

The ward accommodation of the "Ganges" then consisted of—

The total accommodation for sick on board.

In the upper ward	- -	43 cots.
„ lower „	- -	38 „
„ after „	- -	60 „
Total	- -	141

Or with hammocks in the convalescent ward 188.

To this may be added our ward for infectious diseases, which was only once used. This was the horse boat. When the ship was at sea, it was slung up just abaft the hurricane deck and could be comfortably roofed in with canvas. It could easily accommodate from four to six patients, and they were effectually isolated.

The infectious ward.

In harbour at Souakim when this boat was in use its services as an "infectious" ward would not have been required, as such cases would have been sent on shore, but as at sea they cannot be so got rid of, this boat formed then an excellent means of isolation.

The large holds of the "Ganges" could not be wholly utilised, but a part of the main hold was made available as a pack store and another for medical stores by throwing a kind of spar deck across it. The mizen hold was also used as a pack store for the convalescent ward, which was convenient, as it was just below it.

Store-rooms.

The clothing and equipment stores were in the stern of the ship abaft the convalescent ward.

The ventilation of the wards has been already adverted to.

Ventilation.

Lighting.

At night four Ridsdale's lamps were used in each ward. They were found sufficient for all ordinary purposes.

Conservancy.

There were seven waterclosets, Blundell's patent, on the main deck and as many urinals. The lower and convalescent wards, being below the water line, were without any, and the pans after use had to be brought up to the slop-room on the upper deck to be emptied.

This had to be carefully carried out and was done by coolies from Bombay, who acted as sweepers or conservancy men, six to each ward. A "lift" for the pans to the upper-deck would have been a great convenience. As things turned out, however, it was practicable always to treat cases of dysentery, diarrhœa, and, indeed, all severe cases, in the main ward above, so that there was less inconvenience than might have been expected in the foregoing respect.

Cleansing, &c.

These coolies swept and washed out the floors of the wards (which, as has been already stated, were painted) every morning at six. After this a mop moistened with carbolic solution was passed over the floor. MacDougall's powder was daily dusted about the staunchion blocks and under the cots.

It was a rule that all empty pans should be kept exposed to view so that if seen to be closed down (as they would be after use) they had to be immediately removed, and this was imperative.

Lavatory.

The lavatory of the upper ward had 13 basins—an ample supply—and those of the others six each. As to baths, there were three in the upper ward and one each to the others; tanks had to be put in underneath the lavatories of the lower deck to receive the dirty water, and these were emptied twice a day by force pumps.

Water supply.

On being chartered a Normandy condenser equal to producing 4,000 gallons daily was put in to supplement the two small ones already on board. The daily consumption at Souakim was from 4,000 to 5,000 gallons, and that these condensers easily provided.

The water after condensation passed through a bed of charcoal to free it from any oily matter imparted by the machinery.

It was then pumped up to a large tank on the hurricane deck, whence it was distributed to all parts of the ship.

At each ward it passed into a Creases filter, from which it was taken for use. It was always excellent and free from any oily taste.

Very cold water could be always got from a tap near the saloon pantry. The low temperature was produced by a pipe from the cold air machine (to be presently noticed) passing through the filter.

Cooking galley.

The galley is on the upper deck and could cook for 200 patients besides for officers.

The cooking was very good, as good or better than in most station hospitals, and the quality of the food was also very good. In the Appendix I have placed the scale of diets issued. There was a large scullery beside the upper ward, but there was no "lift" to get the diets down easily and quickly to the wards. This would have been an improvement. Two men of the detachment assisted in the galley. Meals were at eight, a quarter to one, and half-past four.

The "cold dry air" machine.

The Hall's cold dry air machine which the "Ganges" possesses was of the greatest value. Its principle is the compression and cooling of the air in that state, after which the air is allowed to expand, when great cold is produced. Meat, fowls, &c. were kept in good condition in the cold chamber, so that the sick had always fresh meat. In the later voyages of the ship 25 gallons of milk were taken in at Portsmouth and put in the chamber, where it became frozen hard. It was used on the homeward voyage for the benefit of the severer cases, and was found to be perfectly good.

The machine also gave an unlimited supply of cold water as just noticed, so that altogether it was invaluable to the hospital, and seems to be indispensable to any ship on a like service.

The ease with which a pipe from it kept the water cold suggests that a small ward might be fitted with pipes so that it could be kept cool in hot latitudes. Such a ward would be very appropriate for the treatment of the cases of heat apoplexy, heat exhaustion, and fevers then likely to prevail.

Ice.

The machine can also make ice, but this was not required, as there was always a plentiful supply from the ice-making ships at Souakim. In consequence there was no necessity for having the apparatus at work at night, and so noise from this source was obviated.

Laundry.

Laundry and washing.

The laundry (*ante*, p. 2) was a very valuable adjunct. It was in charge of an orderly, and there were four dhobies obtained for it from Bombay. It was only concerned with the washing of the hospital clothing, towels, and soiled sheets. As the Admiralty provided the bedding the washing of this was done for them by the Company, that is to say, the ship's steward was responsible for it.

The dhobies are, I think, a novel feature in hospital ships, and were, in this instance, an undoubted success. They had to work hard at Souakim, as some hundred pieces were washed and dried every week.

Once the number was five hundred. Another time the labour would be immensely lightened by having steam laid on to work the vowel machine.

Drying.

Regarding the drying at Souakim it was easy enough, as the ship was close to the shore and a few poles and lines were put up close by, but at sea it had to be done on ropes stretched across the forecastle. Occasionally some articles would be blown overboard. I think it would be well to have a drying room attached to the laundry on this account.

Equipment and clothing.

The "Ganges" being a hired transport, the owners, for the Admiralty, provided the bedding, food, medical comforts, disinfectants, and mess utensils, whilst the Ordnance Stores supplied all hospital clothing and utensils, &c.

Hospital staff.

The hospital staff consisted of five medical officers and a quartermaster, a detachment of the Medical Staff Corps, of one warrant officer, two non-commissioned officers, 45 rank and file, and four ladies of the Army Nursing Service.

Number of medical officers.

The medical officer in charge.

The medical officers were: two surgeons-major and three surgeons, and the senior of the former was the medical officer in charge, and was also vested with the powers of military commanding officer on board.

Duties of medical officers.

Of nursing sisters.

The wards of the main deck, *i.e.*, the upper ward and those of officers, were distributed between two medical officers who were assisted by two of the nursing sisters. Here all the severer cases were treated. The lower and convalescent wards were each in charge of a medical officer, and another nursing sister did duty in the former and another took up night duty solely, having no duty by day. This turn of night duty was at first for a month, but at Souakim this was found too trying and a fortnight was substituted. There was an orderly officer for the day with the usual duties, but each officer was responsible that the dinners of his patients were in all respects correct. The officer in medical charge saw all convalescent officers every morning.

Ward masters.

Assistant masters.

The sergeant-major of the detachment was chief wardmaster and there was a non-commissioned officer assistant wardmaster in each ward.

Orderlies.

At first there were nine orderlies to each ward, but afterwards, when the cases brought from Alexandria proved to be milder in their character, the number was reduced to six.

Quartermaster.

Steward.

Non-nursing duties.

"Gangway" orderly.

Outside the wards the duties were various. The quartermaster, with a staff sergeant as steward, had charge of the hospital clothing and linen and pack stores. The incessant admissions, discharges, and transfers rendered the duties connected with the pack store very laborious. Three men were fully employed in these stores under the steward. Two orderlies were in the galley helping the ship's cook, one in the office as clerk, one as laundry man, one as letter carrier, and one as gangway orderly. This last was posted by the gangway and kept a book containing the names of patients who were in hospital at the time entered by corps. Opposite the name he inserted the number of the section and of the cot where the man was; with this information in his possession his duty was to take visitors straight away to any patient they wished to see.

As the number of medical officers doing duty on board varied from time to time so the distribution of duties also varied. The second surgeon-major and two of the nursing sisters were invalided from Souakim, but the two latter were replaced by others.

Arrival at Souakim.

The "Ganges" left Albert Docks on the 26th February and arrived at Souakim March 14th, 1885. She was moored about half way down the harbour close to the reef on the northern side. This position was rather far in and too close to the cemetery, but during the progress of the operations it was convenient, being within a short distance of quarantine island where the various offices and auxiliary hospital were located. Subsequently, when, from the increasing heat, a berth farther out became desirable, the sudden break up of the expedition rendered any move of this kind unnecessary.

The first case.

A few hours after arrival the first case was received on board, a soldier, Private G——, of the East Surrey Regiment, who had been speared in one of the night attacks then common whilst lying asleep in his tent. The weapon entered near the left nipple, passed through the axilla and emerged at the inferior angle of the left scapula. Hemorrhage had been severe, and the man when admitted had a very exsanguine appearance. All the wounds were sloughy and a sharp attack of secondary hemorrhage a week after necessitated opening up the anterior wound freely, and securing two vessels which were found to be half divided, one probably, from position, the subscapular artery. After this he gained ground slowly, and was doing very well when he left for England.

Case of hernia cerebri.

On the 11th 30 sick and wounded were received. The most important of these was a penetrating wound of the skull in the right pontal region with hernia cerebri, which, under strict antiseptic dressing, progressed without a bad symptom. The hernia became gradually dark coloured under the antiseptic (iodoform), softened and came away, leaving a granulating surface level with the bone, and when he left for England cicatrization was proceeding actively on there. The case is given in the Appendix.

Arrangements for moving sick on board.

Steam launch.

The horse-boat.

The transfer of sick from shore or to other ships was throughout done very efficiently by the ship's horse boat towed by the steam launch. It was soon found necessary to get a second horseboat from the naval authorities, and one was generally kept at the jetty ready to receive sick at any time. There were often more calls on the steam launch than it could at once answer, and on two occasions the launch of the National Aid Society assisted, but at all other times the launch of the "Ganges" did the work required single handed. By the prevision of the medical authorities at home, the horseboat had been fitted out with bars which were placed transversely across the boat, and on each of which a cot could be slung. By this means the boat was able to accommodate about 20 invalids at one time.

When sick were going to embark, the Principal Medical Officer of the base ran up a Geneva flag over his office as a signal to despatch the launch to shore. It took about eight minutes from the moment the signal was observed to reach the jetty with the launch. When the boat with invalids came alongside, that is, to the gangway port forward, each man was swung up by a derrick and pulley and brought in through the gangway. If destined for the lower ward, another derrick and pulley lowered him through the main hatch. This was done both comfortably as regards the sick and expeditiously.

In the case of officers, the after gangway port was used and they were carried through the saloon.

Short trips to sea for convalescents.

A large steam launch was placed at our disposal by the transport officer every afternoon to give the convalescents a trip out to sea for a few hours. It easily held 40 and left about 4.30, returning at sunset. It was a very valuable adjunct to treatment and broke the monotony of the day, besides letting the men enjoy a little cool air outside the harbour. With all hospital ships kept in harbour something of this kind is most desirable.

The climate.

Its influence on the sick.

The weather was pleasant in March and the early part of April, as a northerly wind prevailed. When it was southerly and came up the Red Sea the air was extremely damp, and the sick (as distinguished from the wounded) exhibited checks in their progress in various ways, especially in a tendency to increase of pyrexia. But the wounds were little influenced by the atmospheric change. As the season advanced the breeze often dropped altogether at night, and then there was considerable "closeness" between decks. There was a very sensible increase in the heat during the early part of May, which, as it was accompanied by much moisture approaching occasionally saturation, affected the patients unfavourably. I append some observations taken at this time on board. On the 9th May the dry bulb at 9 a.m. was 87°, the wet 84°.

Heating of the water in harbour.

Moreover, the water in the harbour had reached a temperature of 90° causing the wards on the lower deck to have this temperature also as they were on the water line.

Under the circumstances I recommended that the ship should be sent out for a short cruise to get cooler air and water around her, and that this should be repeated if experience showed it had the desired effect. The expedition, however, coming suddenly to an end, this step became unnecessary.

Duration of stay at Souakim.

Altogether the "Ganges" was 10 weeks and 2 days at Souakim.

Total admissions whilst there.

Majority of the cases under observation for a short period only.

The total admissions were 784. They were from all branches of the service; 64 were seamen and marines, 23 were from the Australian contingent, 5 were officers of the Indian army, and a few were civilians. Of the 784 admissions, 98 were officers. Before proceeding to consider the character of the sickness met with, it is necessary to premise that the cases, as a rule, were a very short time under observation, for it was desirable to get the invalids away as soon as possible to cooler latitudes, and arrangements were made accordingly and regularly carried out. About 10 days was the time cases which evidently had to be invalided remained on board. The progress of the cases for any length of time, and their conclusions cannot therefore be given, except in some which ended fatally.

Analysis of the cases as to result.

Of the rank and file, seamen, and marines, there were—

Invalided - - - - - -	379
Transferred to other hospitals - -	136
Returned to duty - - - -	163
Died - - - - - - -	8
Total - -	686

Of the 98 officers admitted there were—

Invalided - - - - - -	50
Returned to duty - - - -	47
Died - - - - - - -	1
Total - -	98

The admissions for wounds.

There were 105 admissions for wounds, 31 of which were from spears, and the other gunshot.

Case of sloughing after amputation.

With two exceptions, and one of these only temporarily, all did remarkably well. There was no septic manifestation at any period, although the number of wounded on board together was at one time considerable. The exceptions were these: At the attack on the zareba (Tofrek), 22nd March, a man of the Medical Staff Corps received a gunshot wound which necessitated the immediate amputation of the left leg at the upper third. Done on the field as it was, antiseptic precautions could not be carried out efficiently, and on admission three days after the wound appeared unhealthy, and eventually the posterior flap sloughed to a large extent. In addition, another untoward event occurred. The anterior flap where it covered the extremity of the bone gradually gave way, exposing the latter.

As the constitutional symptoms were severe it was decided to wait till they had somewhat subsided before removing the necrosed bone. Before many days had elapsed these did abate under constitutional treatment (quinine and liberal nourishment with wine), and this was followed by a remarkable local improvement. The necrosed portion turning out to be of no great thickness was partially absorbed, and the rest pushed off by vigorous granulations which rapidily rose up, and from this progress was steadily made.

The other case proved fatal from exhaustion after operation (amputation of leg.) It will be found in the Appendix.

Character of the operations performed on board.

Notes of the more important cases are given in the Appendix. No major operations had to be performed on board. The surgical procedures necessary were for secondary hemorrhage, extraction of bullets and of fragments of bone, &c.

Prevailing diseases.

In the latter part of April and in May, the wounded had given place to cases of dysentery, enteric fever, &c. The totals of each were as follows:—

Enteric fever, 68.
Exhaustion, 62.
Sunstroke, 11.
Dysentery, 58.
Diarrhœa, 77.

These affections furnished the bulk of the admissions after the active part of the operations was over.

Enteric fever. The first case.

Now, in regard to the first of these affections, it is curious that the first recognised case was that of one of the detachment of the Medical Staff Corps serving on board. Two or three cases had been received previously to this, but they were all advanced in the convalescent stage, it being strictly laid down that no case was to be moved during the active stage, or, indeed, for some time after (to guard against relapse occasioned by the fatigue of the journey). In the cases, therefore, on board at the time of this man's attack, all diarrhœa had ceased, and they were suffering from debility only. The cause in this instance would appear to be of a climatic kind, and I have no doubt that to this factor, combined with others of a depressant kind, as excessive fatigue, want of sleep, food obtained irregularly and of indifferent quality, may be attributed the bulk of this affection at Souakim. These are the inseparables of a campaign, powerful deponents of the system, and telling especially on the young.

The case just referred to was the only one among those living on board. Though the cases brought from shore were all apparently more or less convalescent, the disease was frequently under notice actively enough in relapses, and in men admitted under other affections, which were only masked forms of the disease. Among the cases of simple continued fever, exhaustion, diarrhœa, and dysentery that were received from time to time, there would be one which after a few days would take on an enteric character and finally prove one of this fever. Among the cases in the Appendix is a good instance of this, that of Private G——, 20th Hussars. He had been in the base hospital for a short time (period not stated) with diarrhœa, and was sent on board, May 8th, suffering apparently from some debility only, the result of his attack. On May 12th diarrhœa set in sharply, followed next day by convulsions of a clonic character, and death on 16th.

On examination the intestines presented the usual pathological characters. The agminate glands were extremely infiltrated and prominent with commenceing ulceration in some of those above the ileo cæcal valve.

This appears to me to be a typical case of that variety of the ambulant form of the disease in which a lengthened period of suppression is brought to an end by an outburst or explosion like that which occurred in this case. When the disease declares itself in this sudden and violent fashion it is the nervous system which bears the brunt of the outburst as shown by the frequency of convulsions, great delirium, &c., and my experience of such cases is that they are very fatal.

The nervous system profoundly affected in the sick generally.

The deep implication of the nervous system was observable in most cases of the fever at Souakim. I have already alluded to the depressants incident to field service like that gone through at this place, and a glance at the men as they came on board showed what a strain had been put on their system. There was one stereotyped expression of weariness—of anxiety almost—on the faces of all. They were "hollow-eyed," and looked thin and haggard. Most of them would say that all they wanted was "a good rest," and certainly this, with sleep, sufficed for such as were only cases of exhaustion, but others could not obtain it unaided by hypnotics, and this insomnia easily and soon differentiated cases of pure exhaustion from those of a more serious nature.

Prominent symptoms.

In all, however, symptoms referrible to the nervous system were prominent, including the cases of enteric fever. On the other hand, diarrhœa and the other abdominal symptoms were not marked. The stools early in the disease had often a dysenteric character, but they soon lost this.

Relapses.

Relapses were not uncommon and some were as severe as the parent attack, though less protracted.

The specific eruption.

The eruption was found present in about half the cases seen in the active phase.

Treatment. Milk.

As to treatment, great efforts were made to produce fresh milk for these cases, the condensed kind being so unsuitable. The price at first in Souakim for a wine bottleful was 2*s*. Sanction was obtained to buy a cow, and one was procured in the town and placed in a stall put up on the shore close to the ship. She proved, however, a very poor milk giver and was returned to her owner before the purchase money had been handed over. An attempt was then made to get one from Jedda, a port on the opposite side of the Red Sea, but the jealousy of the Turkish authorities, I believe, prevented the shipment. Finally one was brought up from Aden, but she never gave more than a quart

Frozen milk.

morning and evening, and often less than this. Afterwards in bringing invalids home from Alexandria good milk was procured there and at Portsmouth, and kept frozen in the ice-room. When wanted it was thawed slowly and taken into use with as little delay as possible.

Brand's essence of beef and Valentine's extract were both liked. The latter has the convenience of not requiring to be warmed.

Treatment by application of cold.

Cold applied by means of towels wrung out of iced water was found to have a very soothing effect. It was resorted to at first to check rising temperatures, and this it did though the effect was not very permanent. It was found that it had a good effect on insomnia. Enveloping the body in a wet sheet and applying iced water as it grew hot was found sufficiently powerful to combat a high degree of pyrexia, and was employed instead of the cold bath, as it was more easily carried out and with less trouble to the patient.

Quinine was largely used both as an antipyretic and in convalescence.

"Exhaustion" or "heat exhaustion."

In regard to the cases called "exhaustion," of which there were 62 admitted, the fact that this term had to be brought into use, to denote an abnormal condition extremely common among the troops during these operations, indicates clearly the trying character of the duties at this time. Some of the cases coming on board as exhaustion turned out, as I have already stated, to be masked enteric and some developed mild fevers of the continued type. The others had for the most part a temperature slightly above normal, which soon went down after a day's rest and sleep.

In a few cases the temperature was sub-normal, and this, I believe, was considered pathognomic, as it were, of the condition of "exhaustion" by medical officers on shore, who found it the rule; when otherwise, as in most of our cases, the difference was due, to a degree of reaction having occurred when the cases were received on board. Considering their nature I need not say that *pure* cases of exhaustion quickly came round. Food was good, ice was plentiful, and, what was more beneficial still, they could rest without disturbance at night; all these things they had lacked on shore. They were all able to return to duty after a short time.

Cases of sunstroke.

The cases of sunstroke (11) treated on board were all received after the attack was over, when the after effects had to be dealt with, consisting of headache, debility, &c. In one case there was slight hemiplegia, which proved temporary only. Most of these men were sent home.

Dysentery and diarrhœa.

Of the dysentery and diarrhœa which prevailed I cannot say anything new. Ipecacuanha proved trustworthy as usual in the former disease. One case proved fatal, belonging to the Australian contingent. Four cases of abscess of the liver came under notice associated with it.

Departure from Souakim.

First voyage.

The "Ganges" left Souakim for England May 26th with 16 officers and 129 non-commissioned officers and men invalided to England and 45 to Suez. On the morning of departure the temperature was—dry bulb 89°, wet 84°. Before leaving there was a thunderstorm with heavy rain. Three hours after getting into the open sea the thermometers registered, 84° and 80°. The after ward of the lower deck, which had been 92°, fell to 84°, and the coolness was so sensible that the punkahs were stopped. It follows that if the cruise mentioned previously as recommended had been carried out it would have been very beneficial to the sick. All the cases began to improve with two exceptions. One was that of Lieut.-Colonel G——, commanding Sutherland Highlanders. He had come on board two days before sailing as a case of remittent fever. On the 30th, whilst the vessel was in the canal, he was seized with severe pain in the abdomen and died the following day in collapse. There were difficulties in making an autopsy as the ship was at Port Said, but the great probability is that the case was one of enteric fever with perforation.

Notes of the case are in the Appendix, as also that of another fatal case, a soldier of the Royal Marine Light Infantry, who had sustained an amputation of the left leg below the knee, owing to an injury received on the railway at Souakim. Death was from exhaustion. His constitution had been impaired by nearly a year's service at Souakim.

Present of tobacco from Her Majesty, and of jersey shirts from the National Aid Society.

At Port Said Her Majesty the Queen presented each invalid, through the agency of the National Aid Society, with ½ lb. tobacco, and the society itself gave a woollen jersey to each, a very useful article to men passing into a colder climate as these were. The "Ganges" left Port Said on June 2nd. It was so cool in the Mediterranean that punkahs were discontinued.

At Malta.

Malta was reached on the 5th June, and here I bought a large quantity of oranges for the invalids, the expense (5*l.* 5*s.*) being defrayed by the National Aid Society.

Case of dysentery and abscess of the liver.

The day after leaving Malta, Sergeant B——, C. and T. corps, who was suffering from severe dysentery and abscess of the liver, died from exhaustion. The abscess was aspirated. It proved to be at a considerable depth and the canula was left in 24 hours to form a track. The dysentery, however, continued unabated and produced the fatal result.

Change in climate.

From this date it became so cold that another blanket was issued to the invalids, and the orderlies took serge clothing into wear instead of khaki. The main hatch skylight had until now been off; it was placed on for warmth.

Arrival at Portsmouth.

The vessel arrived at Portsmouth on June 13th. Twenty-two of the worst cases were lowered into a tug, which took them round to Netley. The remainder (excepting a small party for Woolwich) were sent by rail the next day.

Second voyage.

It having been decided to employ the "Ganges" for a further period in order to bring invalids from Egypt, she left for Alexandria on the 22nd June. The interim was utilized for putting in two sets of propulsion fans as made by Messrs MacWhirter, both to deliver air into the wards of the lower deck. They were placed on the upper deck, that for the lower ward close to the main hatch skylight, and that for the after or convalescent ward abaft the music saloon. They proved exceedingly valuable additions to the hospital, thoroughly aërating the wards whether the windsails were acting or not. The delivery by the fans aft which were here on two separate shafts was over 13,000 cubic feet per minute, revolutions of engine being 125; that by the one forward with single shaft was 9,000 feet per minute. The after fans were at first rather noisy and audible in the officers' wards, but as soon as the belting was got into order little inconvenience was experienced from them. The noise could hardly be called disagreeable, being a sort of hum, but liable to be annoying if the running gear was not in perfect order, so that it is advisable not to put them close to wards.

Desagulier's fans fitted up.

Their rate of delivery.

The propulsion fans.

A pack and medical store rooms constructed in the main hold.

A spar deck was placed in the main hold at about half its depth on which to have a pack store supplementing that already existing, which was too small. There was found to be room enough beside it to make a store for medicines and both proved most convenient.

Duties on the outward voyage.

On the voyage out the detachment of the Medical Staff Corps, now consisting of 1 warrant officer, 5 non-commissioned officers, and 43 rank and file, besides the ordinary parades on board ship, attended daily classes under the medical officers. The subjects were those of the manual for the corps. The wards were thoroughly cleansed and repainted, and when the weather got warm the mattrasses, pillows, blankets, &c. were all brought upon deck, and spread out in the sun throughout the day.

Second voyage.

The "Ganges" arrived at Alexandria on July 3rd, the weather having been fine the whole way.

The next day a number of sick was received from the Palace Hospital, Ramleh, and the following day a special train from Cairo came alongside at 3 p.m. with officers, non-commissioned officers, and men invalided. The total now on board was—

Officers - - - - - -	22
Non-commissioned officers and men - -	170
Total - - - - -	192

with which the ship sailed the same evening. They were mostly cases of debility after enteric fever and dysentery.

Trial of the cooling arrangement connected with the fans.

On arriving at Malta on July 8th, the conditions being favourable for testing the arrangement for cooling the air in connexion with the conduit of the ventilating fans—(the ship lay in harbour and the windsails hardly acting, the day being still; temperature of the wards 78°) 2 cwt. of ice were placed in the large box which had been interposed in the course of the conduit coming from the fans. The air was driven over the ice and thus entered the ward cooled, but the appreciable effect on the temperature of the ward only amounted to one degree of reduction. This was obtained by rather a large expenditure of ice, the whole of the 2 cwt.

Expenditure of ice in cooling the air.

being melted in rather more than half an hour. That the fall should have been so trifling was, I believe, owing to the extremely free perflation of air through the wards, that which was driven in escaping at once through the large open main hatch above. If this had been closed no doubt a further reduction would have been gained, but as the wards were full of sick at the time, it was undesirable to limit in any way the ventilation. On the whole it may be said that it is hardly feasible to cool large spaces between decks, and at the same time maintain the great freedom of ventilation, which is so essential where the allowance of cubic space is so small relatively, as in ships.

Hot weather experienced.

At Malta a few more invalids were taken in. The weather proved unusually warm until Gibraltar was passed. The wind was from the east, hot and damp, but it blew only lightly, and as it was aft the progress of the ship neutralised its motion, so that the wind sails did not act. For four days the fans were kept at work night and day, and answered every expectation. The cases evinced a great improvement, indeed to a surprising extent in the majority. The "Ganges" arrived at Portsmouth on July 16. All the invalids except two were forwarded to Netley the same day. These two were a case of hepatic abscess which had recently burst into the lung, and a severe relapse in a case of enteric fever. Both these were sent to the station hospital at Portsmouth.

Third voyage.
1 warrant officer
2 staff sergeants,
34 rank and file.

As the majority of the cases were convalescents, and few requiring special nursing, and as it was presumed that this would be the general character of the invalids from Egypt who would be sent home next voyage, the detachment of the Medical Staff Corps was reduced to the strength as per margin.

Twelve cans of milk were placed in the refrigerator for use with the sick returning. Fine weather was experienced all the way. The detachment had daily classes of instruction, and aired the bedding, &c. daily on the upper deck.

The "Ganges" arrived at Alexandria August 2. On the 7th a party of invalids from Ramleh were brought on board in the morning, and about 2 p.m. a train came alongside with a large number from Cairo. The total was as follows:—

Officers - - - - -	13
Nursing sisters - - - - -	2
Non-commissioned officers and men - -	164
Officers, R.N. - - - - -	1
Seamen - - - - - -	8
	188

In addition there were 23 officers of the medical staff and a chaplain returning on reduction of establishment. The ship left Alexandria two hours after the sick came on board. At Malta, on 10th, 14 military and 21 naval invalids were embarked and five seamen landed, making the total now of invalids on board 218.

Case of varicella.

Fine weather was enjoyed all the homeward voyage, and the benefit of the change was so great that a large number of the men appeared to have recovered completely and to be fit for duty. On the 12th an invalid with syphilis began to develop an exanthem which looked very like that of small-pox, and it was accompanied by a temperature of 104 degrees. As he had come from Cairo, where at the time there was a good deal of this disease, the possibility of his having contracted it was considered, and his isolation was easily and completely effected by placing him in the horse boat. There was little or no trouble in accomplishing this. His cot was unshipped, and he was carried to the after hatch, placed with all his bedding in a canvas cot, and easily swung up to the boat, which had been covered with a double awning. Two orderlies were placed in attendance, and were not allowed to leave the boat. The eruption quickly became vesicular, on the face and neck, but the vesicles had no bases, and the contents never became pustular. In short, it proved to be a severe case of varicella. He was sent, on arriving at Portsmouth, to the station hospital there.

The milk kept in the refrigerator was served out to the severer cases, and was greatly appreciated.

The weather in the Mediterranean was hot, and the fans were kept going throughout. Punkahs had to be employed in the lower officers' wards. Portsmouth was reached August 18, and a few hours after arrival the invalids proceeded by train to Netley.

Fourth voyage.

Left Portsmouth August 27, and arrived at Alexandria September 7, after a very fine passage.

On the 11th the invalids were embarked and the ship sailed the same afternoon. They consisted as before of one party from Ramleh, who were embarked early in the morning, and another and a larger one which came by train from Cairo in the afternoon. The total number was made up as follows:—

Officers - - - - - -	16
Non-commissioned officers and men - -	177
Seamen - - - - - -	11
Army nursing service - - -	2
Total - - -	206

At Malta, on 17th September, 3 seamen were landed and 17 embarked, along with 12 invalids from the garrison, and 4 officers, making the total number of invalids on board 236, of whom 25 were naval. Besides these, there were a few officers returning to England on duty. Two days after leaving Malta Captain B——, A.P.D., died from dysentery and abscess of the liver. This officer had been at Souakim during the operations, March to May, and afterwards proceeded to Cairo apparently in health. No abstract of his case was received with him, but the following was elicited: He suffered from diarrhœa at Cairo in June, but recovered without having to go on the sick list after being prescribed for by a medical officer there. He then went to Helouan and had baths in the sulphur springs, remaining a week. After returning to Cairo he had to go on the sick list, and after little more than a week came on board the "Ganges." On his arrival he appeared greatly exhausted, and though he rallied for a time, the disease ended fatally five days after. The large intestine was found in a sloughy condition, and the substance of the left lobe of the liver occupied by a large (solitary) abscess. His case will be found in the Appendix.

The great bulk of the invalids were convalescent, and at the end of the voyage looked fit for duty, or as if they would soon be so.

Mount Troodos as a sanitarium for the troops in Egypt.

There is no doubt the voyage was of immense benefit to them, but it appears to me that since recovery is so quick some remedial measure short of sending so many men home might be tried in the case of the troops holding Egypt. That country is provided with a natural sanitarium for British troops in 24 hours steaming from Alexandria. I refer to Mount Troodos in Cyprus, which might be relatively to Egypt what the hill sanitaria are to the plains of India. A suitable means of transit for weakly men from the coast up the hill would be required, but the distance is not great.

Such a sanitarium needed.

Again, huts would be necessary, not tents, which would become too cold at night at such an altitude. If a convalescent depôt were formed at this place and conducted as those in India, I am certain it would greatly diminish the number of sick sent home from Egypt. All cases of debility after fever would improve, and the exceptions could, if any, be sent to England.

I have noticed also many cases of slight debility, after mild attacks of diarrhœa and dysentery, invalided home, as it was considered improbable that they would recover in the Egyptian summer and be fit for duty again. These, such a change as that to Mount Troodos, and a few weeks residence there, would restore to health.

And in another respect it would be advantageous to have a sanitarium so near. It is unsettling to soldiers to see batches of their comrades going home every month or less. They begin to wish to follow them, and not seldom get into hospital for this purpose. They would be less eager to get away if it meant transfer to Cyprus, not England.

The "Ganges" arrived at Portsmouth on 22nd September early, and the invalids left for Netley after dinner, with the exception of four, who were too weak to travel. Nursing sisters P. and H. were also unable to go on. The former had had enteric fever in Egypt, and soon after coming on board there was a severe relapse which extended through most of the voyage. Temperature became normal two days only before disembarkation.

The other nursing sister, Miss H., came on board in apparent health, but soon became unwell, complaining of great nausea. There was considerable gastric irritability, and at first the case was considered an ordinary one of mal-de-mer. An extremely high temperature (104–105°) supervened, and the case ultimately resolved itself into one of pleurisy (left) but with a very limited area. The acute phase lasted from the 15th to 20th, when there was sudden defervescence, but leaving the patient extremely weak, so much so, that she was unequal to the short journey to Netley, and had to be taken to the nearest hotel.

I have now reached the end of the history of the "Ganges" from February to September 1885 as a hospital ship. In the latter month the force in Egypt was largely reduced, and at the end of this, her fourth voyage, it was decided that it was no longer necessary to employ her. Accordingly, soon after landing the invalids, she left Portsmouth for the Royal Albert Docks, where she arrived the next morning.

On the 24th all the medical stores and equipment were got into a lighter and sent over to Woolwich.

The next day (25th) the detachment of the Medical Staff Corps landed and proceeded to Aldershot, and the same evening the "Ganges" reverted to her owners.

Enumeration of invalids brought home,

In the four voyages she made the "Ganges" brought home 72 officers and 652 non-commissioned officers and men, of whom 50 were naval invalids.

There were four deaths at sea, three of which occurred during the first voyage, and the remaining one on the last.

and of the total treated.

The total number treated on board from first to last of her service was as follows:—Officers 154, non-commissioned officers, privates, and seamen, 1,259.

Conclusion.

In bringing to an end this account of the work done by the "Ganges" it would be an omission if, as the medical officer in charge throughout, I did not record my entire satisfaction with the way the "Ganges" acquitted herself in her new character as a hospital ship. The rapid rate at which wounds healed, and the debilitated regained strength, demonstrated the excellence of the sanitary conditions which obtained on board, and which were due to (and could not have been maintained without) such judicious arrangements and alterations between decks as were made on her being fitted out. They rendered the maintenance of these conditions easy.

I feel I must also add that the hospital staff generally were very attentive, and the men of the detachment on board very well behaved. All co-operated in rendering the ship a success. The four nursing sisters on board were indefatigable, and showed unvarying devotion to their duties, which at Souakim were extremely trying. Lastly, I would mention the great courtesy of the master, Captain Andrews, and other officers of the ship. They were always ready to carry out everything conducive to the recovery of the sick, and to supply anything required in the hospital. Nothing could be more harmonious or satisfactory than the relations which existed throughout, between them and the hospital staff.

General remarks on hospital ships.

In conclusion, I beg to offer the following remarks for consideration. It appears to me that the time is come when a ship should be constructed with a view to being permanently used as an hospital for the conveyance home of sick and wounded from the various stations abroad.

Construction of a hospital ship desirable.

The adaptation to such a purpose of a steamer built for commerce, always involves much structural alteration, and, however judiciously this may be done, the result can never be so good as in one that has been designed and built for the purpose. The adapter is hampered by existing arrangements, doubtless excellent for their object—passenger traffic—but not so, for the accommodation and comfort of a large number of sick. Many things he could wish otherwise, but finds the necessary alteration impracticable. Thus he will find, among other things, the machinery taking up much of the space best adapted forwards, the saloon also appropriating more than it ought, and the baths, closets, &c. in positions which he could wish to be different.

Were a steamer specially constructed with a view to being a hospital, not only would the arrangements be according to the best known principles, and the comfort of the sick increased in proportion, but this would be gained along with a decrease in expensiveness. The initial cost of such a ship would not be very great, and she would soon repay it by rendering the employment of hired transports for this service unnecessary.

Work could be always found for one.

Useful as such a ship would be in time of war, she would be hardly less so in times of peace. When the large number of men annually invalided from India is considered* surely ample employment would be found in bringing the severer cases home, and so affording by her superior accommodation greater comforts to such cases than the sick bay of the Indian trooper now supplies. Each sick man would have greater superficial and cubic space, and the cots would not be in tiers. The same class of cases could also be brought from Egypt. In this service a hospital ship would find most fitting employment during the greater part of the year.

Hospital ship could be utilized for conveying troops.

From a sanitary point of view it would be desirable that a hospital ship should on the way out, to bring home invalids, be empty, or nearly so, in order to give the wards a thorough airing; but if at any time it became a matter of urgency to send troops out in her this could be easily arranged for by making the cots removable at will, and having a place in the hold set apart for their safe stowage. Hooks for hammocks could be put up so that for the time the wards would be converted into so many troop decks. After disembarkation of the troops, and thorough cleaning and painting of the wards, the cots could be set up and the ship once more be ready to take in sick.

The points of importance to be attended to in construction.

I will now proceed to indicate the main points which, it occurs to me, should be attended to on the construction of such a vessel.

First point.

The first essential is that all the decks on which the sick are to be located should be above the water line. None should be without closets near so that excreta could be got rid of at once. Above the water line also ventilation can be better, and the wards free from the gloominess that must be the case in those on or below the water line.

Second point.

Another requisite has already been alluded to; it is, that the space occupied by the machinery shall not be great nor in the best part of the ship, *i.e.*, the centre. The engines should be placed as much aft as possible, leaving the central portion available for wards. There would be no difficulty in carrying out this arrangement as a moderate rate of speed only is desirable, for a hospital ship need not be fast when the excellent progress invalids make on the voyage home is considered. During the employment of the "Ganges" the difference in the appearance of the men taken on board at Alexandria from that they presented on landing at Portsmouth always struck me forcibly. The improvement was immense. For the kind of cases sent home, every day spent on board is well spent; and, I think, therefore, that, provided the arrangements on board offer every possible comfort to the sick, it is an advantage rather than otherwise for the hospital ship to be a slow vessel.

It is also to be remembered that the vibration, so disagreeable in mail steamers which are driven at a high speed, would be avoided, and the importance of this is obvious in the case of a steamer carrying sick.

Having mentioned these, which I consider to be fundamental requisites for a hospital ship, I proceed to notice what should be its general character and arrangement.

Two kinds.

In Section X. of the Army Medical Regulations, which deals with hospital ships, a distinction is made between those employed in harbour and carrying ships for the transport of sick from the former or from the base hospital to England.

The harbour ship.

These two types differ in some respects; the harbour ship evidently should, when possible, be of wood, so that it might throw off the sun, and also remain comparatively unaffected by the heated water it would probably lie in. An old "liner," with its large ports, approaches the ideal of this type; but these are no longer available; and as regards wooden ships generally, it must be borne in mind that all our mail and large passenger services have iron ships, and that wooden vessels of a kind suitable for floating hospitals cannot be procured, at any rate, not in the time at the disposal of the authorities. The carrying ship will naturally be an iron vessel with water-tight compartments.

The regulations indicate another important difference, namely, that of size. The harbour ship should be possessed of considerable accommodation, that is, should have over 200 beds, whilst the other is to be much smaller.

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* In 1880, 2,571; 1881, 3,081; 1882, 2,704; 1883, 2,502.

The carrying ship.

I would regard a carrying ship of 100 beds as about the most economical and useful size.

The following measurements are purely approximative, and only given for the purpose of better illustrating the views I entertain on this subject. The carrying ship would be about 200 feet in length and about 30 in beam, more or less, to be determined by the requirements to be met, the more important of which I will now consider.

She should have three decks above the water line, so that closets, &c. might be practicable on each, and the ports or scuttles kept open in fair weather.

The ports should be large and numerous as in the P. and O. Company's vessels.

It is hardly necessary to say that a good height between decks is a first essential. The "Victor Emmanuel" had 7 feet, and the "Ganges" 7½ or 7¾. I think 8 feet should be the minimum, and in designing the ship this could be arranged for without difficulty.

I would propose to have in a vessel of the size indicated one large ward on each of the three upper decks, each accommodating 30 patients, with a superficial area to each of 60 feet. (That of the "Victor Emmanuel" was 44.) These wards would be about the centre of the ship, as shown in the accompanying plan. Their size would be 60 feet long and 30 broad, or the breadth of the ship.

This would give a total accommodation for 90 men. There would be wards for 10 officers aft, making an accommodation for all ranks of 100. It would be desirable to separate off a part of the uppermost of the wards for the treatment of officers to whom the motion or vibration aft might be deemed injurious.

Aft of the wards, opening from them, would be the closets, baths, lavatory; forward would be clothing and equipment stores, operation room, &c.

Such, I think, would be the most appropriate arrangement of a carrying ship, but in consequence of the larger size of a harbour ship two wards might be formed on each deck of a size similar to that of the former. This would prevent such a large number as 50 or 60 being together in the same enclosed place. I would separate these wards by a sufficient interval in which might be located nurses' quarters, offices, &c. This would help administration.

In both types of vessel, the harbour and the carrying, the engines would be in the after part of the ship, behind the wards, as shown in the plan.

The closets, as I have said, would be at the after part of the ward, two or three on each side, and have uptake shafts. The pan ought to have permanganate of potash or other disinfectant connected with it for automatic discharge.

The lavatory would be in the centre of the vessel, in a line with the closets.

The cooking galley is best on the uppermost covered deck. If below this greasy smells will be apt to penetrate the ward and vicinity generally. A "lift" would be necessary to send the diets easily to the wards below.

Ventilation.

By the arrangement of the wards indicated there would be fore and aft ventilation, and also there would be that laterally from the large ports. For the two lower decks a series of vertical shafts as uptakes could be arranged giving an equivalent to roof ventilation. But I should not stop short at this. Sometimes in a ship, whilst in harbour or at sea, with a wind aft of just such force as to neutralize that made by the progress of the vessel in her course, natural ventilation ceases to act and the air tends to become stagnant. I have seen such a condition existing for several days and then artificial ventilation must be resorted to. For this I do not know anything more efficacious than the method employed on the "Ganges" already mentioned, viz., the form of Desagulier's fans made by MacWhirter, which threw in from 8,000 to 10,000 cubic feet per minute. The Edmond's exhaust shafts arranged with a steam jet in the cowl supplement the fans, and, indeed, are always useful. They are a necessity to each ward. I may mention that the cowl in which the jets are placed should pass through and open above the awning so that the steam may escape freely and not wet the deck.

Artificial ventilation necessary.

Punkahs.

For both types of ship, but especially for the harbour, punkahs should be fitted up and worked by a small steam engine. The motion so obtained is not so good as that from good hand pulling, but it can be depended on to be constant, however hot the weather may be, whilst nothing will prevent the punkah boy on hot nights from going to sleep at his work.

It is desirable to have a separate engine, a very small one would do, for the punkahs as they are most required in harbour when the ship's engines would not be working.

Cots.

As to the cots for the wards, the kind used on the "Carthage" and "Ganges" appear to fulfil most requirements. A wire trough might be substituted for the shelf at the head of each, as it would hold bottles, &c., more safely.

Lighting.

The electric light from its coolness alone would be the appropriate method of illuminating the vessel.

Cold-air machine.

The ship should be fitted out with a cold dry air machine, so that fresh meat, fowls, fish, milk, &c., could be always kept in stock. The importance of being always able to issue fresh milk to the sick can hardly be over estimated as the great sweetness of the condensed kind soon makes it nauseous to the invalid palate, whilst the same quality renders it unsuitable in all cases of convalescence after enteric fever, dysentery, &c. The machine would also furnish an unlimited supply of cold water without any expenditure of ice.

Character of uppermost deck.

In the harbour ship, the upper deck should be flush from stem to stern and with low bulwarks so that it might get the full benefit of any air that would be in motion. In the sea-going ship a small forecastle would be very useful in keeping off spray and wind, and it would be a good day room for convalescents.

Quarters of the hospital staff, &c.

The saloon and quarters for the officers of the ship and medical staff would be in the stern, and the crew and Medical Staff Corps would be located forward in the arrangements I propose.

Ballast.

Water ballast tanks would probably be necessary, and an arrangement for flushing out the bilge by pumps.

Contents of the hold.

In the hold I would place all the tentage and equipment of one or more field hospitals. The ship would be amongst the first to arrive at the port or base of operations, and would be able to land at once the *matériel* for a hospital on shore. A large store of medicines, &c., could easily be carried and supplied to the hospitals on shore as wanted.

Means of moving sick.

One steam launch should be carried. A harbour ship would give work to two. A flat bottomed boat, such as that already noticed in the "Ganges," is indispensable for the transit of sick between the shore and ship.

Use of paint.

Paint should be freely used on all woodwork which cannot be made too impervious. It should be regularly washed and renewed very frequently.

In a carrying ship I should say that every alternate voyage the whole hospital should be painted afresh. Every precaution against "hospitalism" is desirable, considering the difficulty of purifying a vessel when this has appeared in any of its forms.

Conclusion.

These, it appears to me, are the more important points which should be kept in view in the construction and working of a hospital ship. I make no pretensions to their being in any sense new, but submit them as impressions formed from my experience on the "Ganges" and other ships. In drawing up this Report I thought they might be fitly introduced, and, in conclusion, I beg to apologize for the very imperfect way in which it has been carried out.

Hospital Ship "Ganges."

Register of Temperature taken on board in Souakim Harbour, April 22–May 28.

—	9 a.m.		—	3 p.m.		—
	Dry.	Wet.		Dry.	Wet.	
April 22	—	—		85	80	
„ 23	79	72		81	73	
„ 24	79	71		81	72	
„ 25	78	71		81	72	
„ 26	81	74		86	77	
„ 27	84	78		86	83	
„ 28	83	75		85	79	
„ 29	81	72		84	72	
„ 30	83	70		85	76	
May 1	82	72		88	80	
„ 2	85	87		89	81	
„ 3	84	79		89	83	
„ 4	85	79		89	82	
„ 5	83	80		85	81	
„ 6	85	70		85	82	
„ 7	83	79		86	83	Rain at 2 a.m.
„ 8	85	82	Rain last night	85	80	
„ 9	83	80	Thunderstorm and rain last night.	85	83	
„ 10	85	81		87	83	
„ 11	87	83		87	82	
„ 12	86	81		87	84	
„ 13	87	84		86	81	
„ 14	88	82		89	82	
„ 15	84	80		83	81	
„ 16	86	77		85	81	
„ 17	84	79		85	83	
„ 18	86	82		87	84	
„ 19	87	84		90	85	
„ 20	89	85		89	85	
„ 21	87	85		89	85	
„ 22	87	84		91	86	
„ 23	87	84		90	84	
„ 24	90	77		95	84	
„ 25	90	79		80	76	Thunderstorm and rain at 2 p.m.
„ 26	89	84	Left Souakim	80	76	
„ 27	84	80		83	78	
„ 28	82	76		78	77	

MEMORANDUM as to arrangements for Messing and Victualling on board the Peninsular and Oriental Company's Steam Ship "Ganges" while employed as a Hospital Ship, and for the conveyance and reception of Sick and Wounded in that Ship.

Messing.

1. Messing for all Government officers and nursing sisters embarked will be provided by the Company, and paid for by the Admiralty at the rates laid down in the Transport Regulations on certificates of messing signed by the officers or ladies from time to time. The officers and ladies will themselves pay the master for all liquors they may consume.

Victualling.

2. The Company have undertaken to provide the whole of the victualling on board the ship at fixed agreed rates for each of the following descriptions of rations:—

Troop Victualling as per Transport Regulations, including one pint of porter or half a gill of spirits per diem.

Hospital rations 1. Tea
2. Milk
3. Low
4. Chicken
5. Half
6. Entire
} as per attached diet table.

The rates include every expense except mess utensils, and certificates of the number of rations of each description issued will be furnished to the master from time to time by the medical officer in charge. The Government undertake that, if required, the several Army and Navy contractors shall supply the "Ganges" with provisions, &c. at contract prices.

Extra issues and drinks.

3. All supplies to officers, and to men on hospital diet beyond the quantities specified in the diet table, and all drink supplied to them, will be paid for by the Admiralty upon the production of the receipt for the articles received, signed by the medical officer in charge. Sick or wounded officers will be dieted from the saloon mess in such manner as may be directed by the medical officer in charge; and, when convalescent, or able to do so, they may be permitted to join the saloon mess, provided the medical officer in charge considers expedient.

Mess utensils.

4. Mess utensils for the hospital deck have been supplied by the Company, but those for the lower deck, occupied by the convalescents and men of the Army Hospital Corps, have been put on board by the Government. As regards the former, the master will be furnished by the medical officer in charge with certificates of losses and breakages, for which no charge is to be made against the men, and will reclaim the value of the Admiralty. As regards the latter, the same course will be pursued as in the case of any other Government stores, the master being furnished with the necessary vouchers to enable him to pass his accounts, and the value of losses and breakages recovered from the men in accordance with the regulations.

Daily diet table.

5. The purser of the ship will be furnished at 6 p.m. each day by the medical officer with a return of the number of each description of diet to be issued on the following day, and men received on board between the times when the returns are made will be dieted on scale No. 2. The purser will be furnished immediately with the numbers on embarkation.

Medical officer in charge.

6. All the arrangements for the care of the sick and wounded will be under the direction of the medical officer in charge, whose wishes are to be followed by the master, and the medical officer in charge is to be considered as the military commanding officer under the Transport Regulations.

Attendance.

7. The attendance on the invalids on board will devolve on the men of the Army Hospital Corps, who will assist the ship's cooks in preparing and cooking the food, for which duty the officer in charge will assign a sufficient number of men. The Company will provide five special stewards at the expense of the Government, who will be under the orders of the medical officer in charge, four to attend on the invalid officers, and one to attend on the nursing sisters.

Cleaning and washing.

8. The cleaning of the hospital and convalescent decks as well as of the cabins and the washing of soiled linen will be done by the crew of the ship; and a

sufficient supply of water and steam is at all times to be available for the purpose. The crew will be specially increased at the expense of the Government, to enable it to discharge these extra duties.

9. Every possible attention is to be paid to the ventilation of the ship throughout, and disinfectants are to be used on the most liberal scale. Ventilation and disinfectants.

10. Means of conveyance of the sick between the shore and the "Ganges" will be provided, and requisition for such conveyance is to be made on the principal transport officer. The "Ganges" will also be supplied with a special large boat fitted for the conveyance of sick. Hospital tender.

11. A small transport will be set aside to be used as a hospital store and tender to "Ganges."

12. These orders are to be produced as required to the Naval and Military authorities where the "Ganges" may call or be stationed. Orders to be produced.

F. W. SULLIVAN,
Director of Transports.

Admiralty, February 1885.

HOSPITAL SHIP "GANGES."

Diet Table.

Military Hospitals.—Articles composing the different Diets for a Day.—Avoirdupois weight.

1.—Tea.	2.—Milk.	3.—Low.	4.—Chicken.	5.—Half.	6.—Entire.
Bread - - 12 oz. Tea - - ¼ „ Sugar - - 2½ „ Milk - - 6 „	Bread - - 12 oz. Rice - - 2 „ Milk - - 3 pts. Sugar - 1 oz.	Beef - - 8 oz.* Bread - - 14 „ Salt - - ½ „ Tea - - ¼ „ Sugar - - 1½ „ Milk - - 6 „ Butter - - 1 „ * Without bone.	Fowl - - 8 oz.* Bread - - 16 „ Potatoes - - 8 „ Salt - - ½ „ Tea - - ¼ „ Sugar - - 1½ „ Milk - - 6 „ Butter - - 1 „ * 10 (if with bone).	Meat { Beef or Mutton } - 8 oz.* Bread - - 16 „ Potatoes - - 8 „ Barley - - 1¼ „ Salt - - ½ „ Tea - - ¼ „ Sugar - - 1½ „ Milk - - 6 „ Vegetables - - 4 „ Butter - - 1 „ Flour - - ¼ „ * 10 (if with bone).	Meat { Beef or Mutton } - 12 oz.* Bread - - 16 „ Potatoes - - 16 „ Barley - - 1½ „ Salt - - ½ „ Tea - - ¼ „ Sugar - - 1½ „ Milk - - 6 „ Vegetables - - 4 „ Butter - - 1 „ Flour - - ¼ „ * 15 (if with bone).
BREAKFAST.					
Tea - - 1 pint Bread - - 4 ozs.	Milk - - 1 pint Bread - - 4 ozs.	Tea - - - 1 pint Bread - - 5 ozs. Butter - - ½ „	Tea - - - 1 pint Bread - - 6 ozs. Butter - - ½ „	Tea - - - 1 pint Bread - - 6 ozs. Butter - - ½ „	Tea - - - 1 pint Bread - - 6 ozs. Butter - - ½ „
DINNER.					
Tea - - 1 pint Bread - - 4 ozs.	Rice Milk - - 1 pint Bread - - 4 ozs. Sugar - - 1 „	Beef tea - - 15 ozs. Bread - - 4 „	Fowl - - 8 ozs. Roasted, boiled, stewed, or made into chicken tea - 12 „ Bread - - 4 „ Potatoes - - 8 „	Soup - - 15 ozs. Meat - - 8 „ Bread - - 4 „ Potatoes - - 8 „	Soup - - 1 pint Meat - - 12 ozs. Bread - - 4 „ Potatoes - - 16 „
SUPPER.					
Tea - - 1 pint Bread - - 4 ozs.	Milk - - 1 pint Bread - - 4 ozs.	Tea - - - 1 pint Bread - - 5 ozs. Butter - - ½ „	Tea - - - 1 pint Bread - - 6 ozs. Butter - - ½ „	Tea - - - 1 pint Bread - - 6 ozs. Butter - - ½ „	Tea - - - 1 pint Bread - - 6 ozs. Butter - - ½ „

Note.—Drinks for patients are to be made and charged according to the following proportions:—

Barley Water.—Barley, 2 oz.; sugar, 2 oz.; for every five pints.
Rice Water.—Rice, 2 oz.; sugar, 2 oz.; for every five pints.
2 ozs. of pepper may be issued for every 100 diets except tea and milk diet.

Gruel.—Oatmeal, 2 oz.; and sugar, 1½ oz., to two pints.
Lemonade.—Two large lemons; and sugar, 1½ oz., to two pints.
1 oz. of mustard may be issued for every 20 beef diets.

SURGICAL CASES.

Case of Captain D——, Scots Guards.—Gunshot wound of shoulder. This officer, who was acting as brigade major, received a gunshot wound of the left shoulder on the 25th and was at once taken to the "Ganges." On examination the bullet was found to have entered about the middle and a little above the clavicle, and then passed slightly downwards splintering the scapula. There was a good deal of ecchymosis over the scapula, but the bullet was recognised easily at no great depth and was cut down on and removed. It was very ragged and flattened out. Some splinters of bone were removed and the wound put up in carbolic gauze.

Severe constitutional irritation soon followed, temperature rising continuously till 28th, when it was 103·8°, after which there was a gradual decline to 103° on the 29th and 102° on 30th. On the morning of the 31st there was a sudden drop to 99°. The discharge increased synchronously with this decline. Some more fragments of bone were removed a short time before he left the "Ganges" (April 2) for England.

Case of spear wound, secondary hemorrhage.—Lieut. C——, Coldstream Guards, was admitted March 24th with a wound of the palm of left hand close to the thumb. The blade passed between the first and second metacarpal bones transfixing the muscles. The wound was dressed with carbolic gauze. On the 26th smart bleeding occurred, necessitating ligature of the radial at the wrist. After this the wound healed without interruption.

Case of gunshot wound of head followed by hernia cerebri.—No. 2080, Private A. F., 1st Berkshire Regiment, aged 23, was admitted with several severe wounds, the principal one over the right orbit carrying away a portion of the frontal bone and injuring the dura matter, so that a portion of the brain protruded about the size of half an egg cut longitudinally.

Another severe cut extended across the right parietal bone for three inches, penetrating it, but not giving rise to a hernia. Listerian dressings were used. No constitutional disturbance of any importance occurred.

The hernia gradually blackened, and as it softened and got washed away by the spray granulations were observed to form around the edges. It was rapidly contracting when he left for England April 13.

Case of amputation of thigh.—No. 39, Private T. L., met with a railway accident May 22nd, crushing the left leg, and amputation was performed by Surgeon-Major Patterson at the lower third of the thigh an hour after sustaining the injury. Received on board May 25th. Temperature 101°, pulse 104, weak. Looked as if still suffering from shock. The stump was dressed on May 26th. It had not a good colour, and there was a tendency to slough manifested. On the 29th a large abscess was opened which had formed in the anterior flap; the pus evacuated was thin and curdy. Morning temperatures were 99°, and those of the evening 101°. Pulse throughout was characterised by feebleness. His strength gave way very rapidly, and he died on the 30th. He had been a year at Souakim, and his constitution had been much impaired.

Spear wound of thigh.—Major F. R., 9th Bengal Cavalry, was admitted March 24th with a spear wound of left thigh. The weapon entered close to the apex of scarpus triangle and passed out immediately below the fold of the nates. It appears that the shaft broke off not far from the head. He states that he became conscious of some hard object having got between his leg and the saddle, and finding, on putting his hand down behind the thigh that something was there, pulled out what proved to be the head of the spear, and a small portion of the shaft which were thus pulled through the wound. The femoral vessels must have undergone considerable bruising by this procedure as they were in the closest proximity.

There was a good deal of oozing for several days, and subsequently the track sloughed, giving rise to much discharge, but at the end of three weeks when he left for England the wound had began to improve.

The following are three instances where joints had narrow escapes from severe injury:—

A private of the Scots Guards was struck by a bullet on the front of the leg, two inches above the ankle joint. It passed through between the bones in a straight line. The wound was closing when the man left for England a fortnight afterwards.

In another case, that of a private of the 1st Sussex Regiment, the bullet entered above the inner condyle of the left humerus, and passed round to the outer exposing the biceps. The joint escaped injury and remained unaffected. The case did well.

Private J. B., Berkshire Regiment, was struck by a bullet on the inner side of the right thigh. It pursued a superficial course, passing downwards along the front of the thigh to the outer side of the knee joint, where it made its exit. The joint escaped, and the case did well as a simple gunshot wound.

NOTES OF CASES OF ENTERIC FEVER.

Case with persistent vomiting and profuse diarrhœa; death five days after admission.

No. 7,827, Private B., Grenadier Guards, aged 23, was brought on board May 18th as a case of diarrhœa. Shortly after he evinced great drowsiness, and could not be got to speak intelligibly. All the symptoms of enteric fever were present except the eruption, and this at no time was observed.

Temperature on admission was 101°; the next morning it was 92·50, but in the evening it rose to 102°. Next day there was no morning remission, and at 9 p.m. it was 103·80. On the following day (22nd) it declined to 102°; from this, however, it went up to 105° on the morning of the 23rd, and death shortly afterwards took place.

The diarrhœa was severe, but vomiting was the most distressing symptom. Out of a variety of remedies tried for this hydrocyanic acid was the only one which appeared to be of benefit. As the ship was on the point of leaving Souakim no post-mortem examination was practicable.

Case characterised by violent delirium, ending in coma and death, four days after admission.

No. 1,144, Private A. C., Shropshire Regiment, aged 20, was brought on board May 18th. He had a typhus-like aspect, dry, brown tongue, black sordes on teeth and lips. The abdominal symptoms were unmistakeably those of enteric fever. Temperature 102·8°, pulse 104, weak. On the 20th he was somewhat delirious, and this condition on the next day became so intensified that he was almost maniacal; coma supervened, and death on 22nd.

The post-mortem examination revealed extensive ulceration of the glands near the ileo-cæcal valve. Mesenteric glands were greatly enlarged, some to the size of small chesnuts. Spleen was greatly enlarged. The head was not examined.

Case of the ambulant type, with choreic convulsions among the final symptoms.

No. 2,225, Private A. G., 20th Hussars, aged 20, was brought on board, May 8th, as a case of diarrhœa. He looked weak, but said he was getting better. He was kept in bed and closely watched, as his temperature was a little above normal. On the evening of the 12th (four days after admission) the diarrhœa, which had been but slight, rapidly increased, and he had a fainting fit the same evening. He was extremely restless through the night, and on the 13th the symptoms were of grave character. Temperature was 104·2°; pulse 116; respiration, 34; urine scanty, sp. gr. 1,031, albumen to a sixth. Diarrhœa was profuse, and of the usual character. During the day jerkings of a choreic nature affected both upper and lower extremities, and he became unable to articulate. On the afternoon of the next day (15th) these choreic movements became extremely marked for about an hour afterwards, subsiding to a considerable extent. Death took place the next day. His temperature and pulse during these three days were as follows: 13th, morning, T. 104·2°, P. 116; evening, T. 103·2°, P. 108; 14th, morning, T. 101·8°, P. 104; evening, 102·8, P. 112; 15th, morning, T. 102°, P. 116; evening, 101·6°, P. 144.

A post-mortem examination revealed nothing abnormal in the brain. It was moderately congested; the glands of the small intestines were greatly infiltrated. Their increased size was distinctly visible looking on the intestine from the outside. Ulceration had set in in many of those near the ileo cæcal valve.

Clonic convulsions are rare, I believe, in enteric fever. A notice of them will be found in Army Medical Department's Reports for 1861, page 497.

Case in which the general symptoms were indicating a favourable course and termination when, probably, from the exertion caused by getting up out of bed (?), a fatal result ensued from perforation.

Colonel G., Argyll and Sutherland Highlanders, of the head-quarter staff, aged 46, was admitted on board May 21st, as a case of remittent fever. He had been ill for some days. There was severe frontal headache. Face was flushed, tongue foul, bowels relaxed, and temperature 102·2°. During the ensuing week the case had the features of one of enteric fever in the second stage, or that of removal of the morbid material from the glands. The following are the morning and evening temperatures from the 24th to 30th: 24th, 101·4°, 103·4; 25th, 101·2, 102·2°; 26th, 101·6°, 102·8°; 27th, 100·8, 102·6°; 28th, 100·8°, 102°; 29th, 100·6°, 101·6°; 30th, 104°, 98·6°. The gradual subsidence of the temperature during May 27th, 28th, and 29th, was favourable, especially as it corresponded with an abatement in the general symptoms. About this time the patient was discovered out of bed, and on the 30th he appeared to be much worse. There was great pain and tenderness over the abdomen, which was somewhat tympanitic. There was a venous flush on the face, and respiration was rapid and rather laborious.

Gastric irritability set in, and in spite of treatment he passed rapidly into collapse, and died May 31st.

As the vessel was at Port Said at this time we were unable to make a post-mortem examination.

Case of severe relapse, accompanied by repeated hemorrhage from the bowels; prolonged pyrexia. Two and a half months from date of attack to recovery.

No. 5,468, Private A. H., Grenadier Guards, aged 20, was brought on board March 28th, from the base hospital, where he had been 10 days. He had the characteristic diarrhœa, and all the symptoms of the disease well marked, except the eruption, which was indistinct. The first hemorrhage occurred May 6th, more than a month after admission. During the previous week the temperature rose considerably, and cold had to be applied to control it. This was done by means of towels, taken out of iced water and applied at very short intervals to the surface. A reduction of 2° was obtained in this way, but only of a temporary nature. The application had to be repeated frequently.

The bowels during this time were quiet. The pulse averaged 100, and had a sharp character.

On May 6th, at 2 p.m., temperature being then 102·6° and pulse 98, he passed per anum about 20 ounces of bright red, fluid blood, and an hour later about the same quantity, but this time dark and clotted. His temperature fell rapidly to 96·4°; pulse was 108, and thready. His features became blanched, and he lay in a fainting condition. An ice-bag was placed on the abdomen and ergot and tincture of the perchloride of iron given in small and frequent doses. By 7 p.m. reaction had set in and temperature was 101°. Hemorrhage recurred on the 7th, and again on the 9th, each time to about eight ounces. Oil of turpentine in 10 minim doses every three hours appeared to be followed by good effect. The 10 succeeding days during which it may be supposed cicatrization of the ulcers was occurring, were marked by persistent pyrexia, the temperature repeatedly verging on 104°. Cold had to be repeatedly applied. On May 28th the temperature, for the first time, became normal, and the case from this date proceeded satisfactorily.

Case of dysentery with abscess of the liver; aspiration.

Sergeant B., aged 35, Commissariat and Transport Corps, was brought on board May 25th, suffering from dysentery of a severe type. He had also great pain in the right side, aggravated on coughing. As there was a general fullness over the lower ribs with obliteration of the intercostal spaces, corresponding to the 7th and 8th ribs. On June 2nd a needle was introduced below the former arteries to its angle. Pus was reached at some depth, and four ounces evacuated; the needle was left in to form a sinus. The aspiration was merely palliative in its object, as the patient's general low condition precluded the least hope of recovery. In this object it succeeded. Death occurred on the 5th.

Case of dysentery with abscess (solitary) of the liver.

Captain B., Army Pay Department, aged 35, was received on board at Alexandria, September 11th, in a state of great exhaustion. The history was that, in June, at Cairo, he suffered from dysentery, but not of a severe kind, as he did not go on the sick list. About the middle of August, to improve his health, he went out to Helonan, and took baths in the sulphur springs there, but after a week returned to go on the sick list, and 10 days later he was sent to the "Ganges." Temperature was 101°–102°, without morning remissions. On the 15th (day before death), it rose to 102·8°.

There was no history of hepatic complication. He was carefully examined in this regard, but nothing definite could be made out; but the presence of an abscess was suspected from the patient's appearance, and from the great prostration present, for which the dysentery could hardly account, as the stools were neither frequent nor copious. He died on the 16th of exhaustion.

At the post-mortem examination the large intestine was found full of sloughy ulcers with thick edges ; some almost perforating.

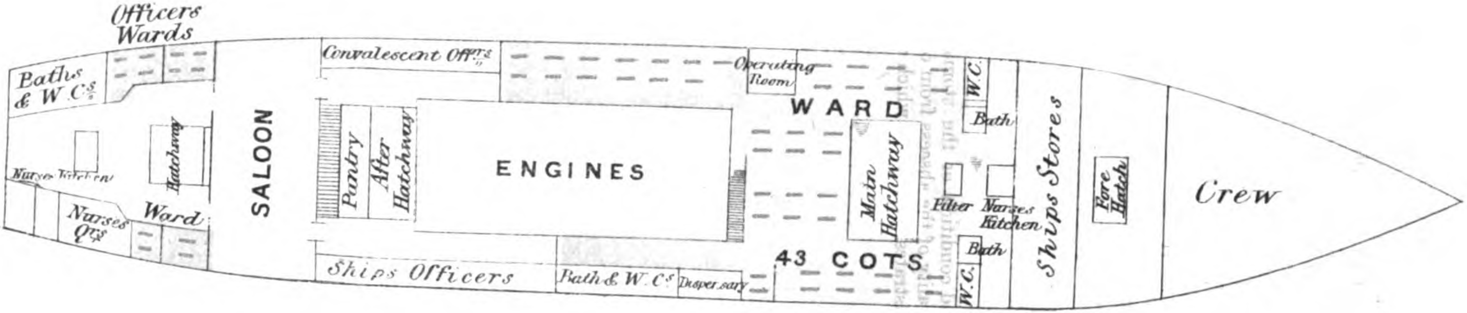
The mesenteric glands were much enlarged. The stomach and colon were distended with gas, and hid the liver from view. The whole of the left lobe of the liver was occupied by a large abscess which had destroyed its entire substance, except the cortex. The right lobe was enlarged from fatty change. Other organs normal.

The distended condition of the stomach and colon during life effectually shut off the locality of the abscess from observation.

The case illustrates the latency which so often characterises these abscesses.

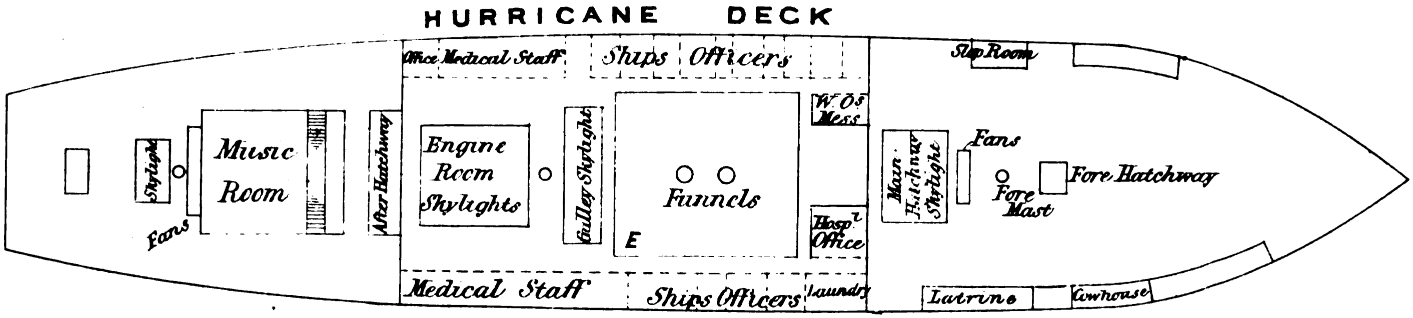
HOSPITAL SHIP GANGES.

MAIN DECK.



HOSPITAL SHIP GANGES.

PLAN OF UPPER DECK.

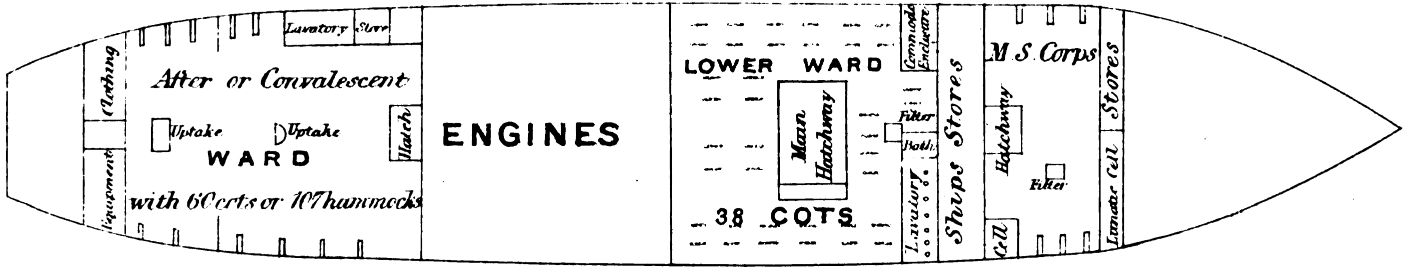


The hurricane deck was assigned to convalescents who sat or walked there. The dotted lines shew the cabins &c underneath it.

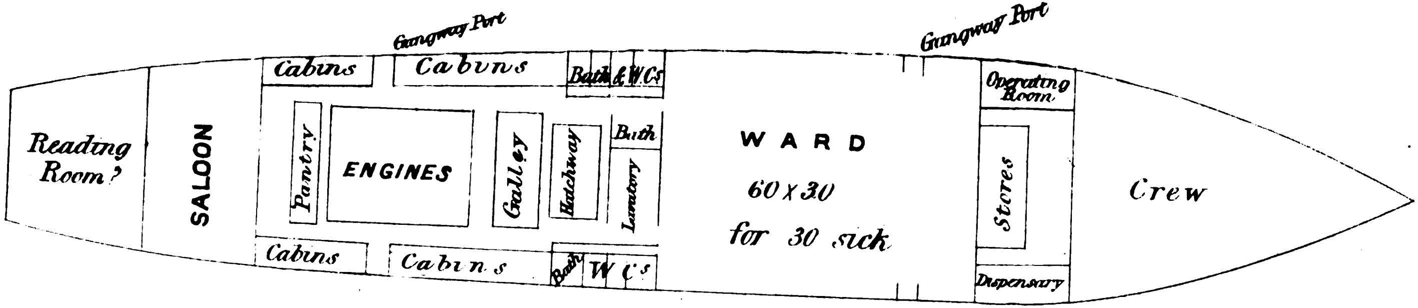
DANGERFIELD, LITH. 22, BEDFORD ST. COVENT GARDEN. 2 86 11327

HOSPITAL SHIP GANGES.

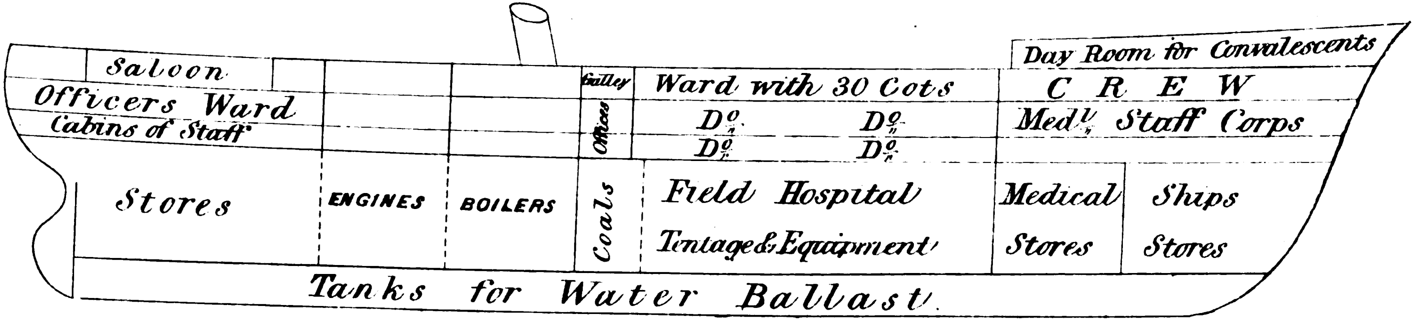
LOWER DECK.



DANGERFIELD, LITH. 22. BEDFORD ST. COVENT GARDEN. 2 86 11327



Upper Deck of a Hospital Ship of the carrying type.



Longitudinal Section of the same.

APPENDIX No. VIII.

REPORT OF MEDICAL TRANSACTIONS WITH THE BECHUANALAND FIELD FORCE, SOUTH AFRICA.

By Deputy Surgeon-General J. G. FAUGHT, Medical Staff.

The force was a very promiscuous one, composed of regulars, both horse and foot, irregulars, both English and Colonial, and a corps of guides, composed of kaffirs of all tribes enlisted at Kimberley.

The force thus composed, chiefly of cavalry, began to assume formation at a camp called Langford, about 12 miles distant from the termination of the railway at Orange River, and isulated on an undulating sandy plain, with scrub here and there on the banks of the Orange River, but well elevated above it and distant from the nearest town, Hopetown, some six miles.

Finding that the hospitals which had been ordered from England for service in this campaign had not arrived, and the General Officer commanding B. F. Force being anxious to move forward without delay, I formed the hospitals I required out of a heterogeneous mass of hospital equipment that had been sent from Natal by the order of the General Officer commanding the troops.

A base hospital with pharmacy wagon for a reserve store of medicines, and two field hospitals of 100 beds, as well as 3 hospitals of 25 beds and field panniers for medical officers in charge of regiments, were provided.

The medical staff and M. S. corps having been appointed to the various hospitals, their hospitals were given in charge to each medical officer.

I had recommended that rest camps should be formed at Beaufort West and Orange River terminus, and I sent forward a 25-bedded hospital for service at the latter camp. The medical officers with regiments would proceed with the first detachments of their regiments as far as Beaufort West, and there await the last detachment.

The railway is narrow gauge and but one special train could be sent up daily with troops, and so this force dribbled up, and on arrival moved on to the camp at Langford.

A second 25-bedded field hospital was stationed here, the medical officers of the 1st and 2nd field hospitals being detailed with these temporarily.

On arrival at Langford I had the 1st and 2nd field hospitals fully equipped with carriage for the field. A mule ambulance, or really a native covered wagon without springs, was set apart for each section of a field hospital.

I made an endeavour to procure cot bearers, through the Commissioner, but beyond promises, without tangible result, and but few servants (native) could be added to the hospitals of the number that had been sanctioned, but as there was no great pressure of sickness no inconvenience was felt from these causes.

The most stringent orders were given about the sale of liquor, and although the temperature rose to 112° in double tents, the men continued in good health and sunstroke was not known, although a great body of men lived in single patrol tents, and the duties, as must always be the case in the formation of a force of this nature, were somewhat arduous. Here at Langford the irregular force was equipped, armed, horsed, clothed to a certain extent; as a matter of fact, this was hardly accomplished in every detail until the force had nearly completed its work.

The force began to move forward on Barkley about the 6th January 1885, and hospitals were placed at intervals along the road at a distance of some 30 miles apart, one of the principal reasons for selecting a site as hospital camp being the presence of a supply of good water, when the troops had all passed forward, these hospitals would move forward and be ready for another further advance of the force.

At Barkley the camp was again selected at a considerable distance from the town in a bend of the Vaal River. At this place I elected to place the base hospital, on a beautiful bend of the river well elevated on a sandy slope about 3 miles from the town.

There being a convalescent home here, the medical officer placed 12 beds at my disposal for special cases.

It was here and from Kimberley that the native establishments for the hospitals were obtained and an attempt made to form a bearer column for the cots, but here again the labour market was so exhausted that the formation of the bearer column had to be put off to a more convenient season.

The field hospitals here were completely mobilised and were fit to go anywhere. To each section of a field hospital a permanent mule ambulance was attached, and by this time all the weak points in the equipment and the harness had been found out and set right; the M. S. and M. S. C. were well in their places and working together.

About the 25th of January the troops began to leave Barkley for Taungs, and sectional field hospitals were again placed along the line of march at intervals of 30 miles or so, and also at Taungs itself, and when the force passed on to Taungs the sections were again called in and ready for more forward work. This system has been carried out throughout the distance traversed by the force, but from Taungs forward at important stations a sectional field hospital was permanently located, or a 25-bedded hospital, where the number of troops was not numerous, in charge of a medical regimental officer.

On this system hospitals have been established, and very complete hospitals for all field purposes over some 400 miles of country from Orange River to Kauya, at eight different stations or camps, and telegraphic communication being established throughout very important occurrances were brought at once to notice, and any defects made good or remedied without any delay, the headquarters being established at Mafeking.

The medical officers in charge of regiments were eventually supplied with ox ambulances, and when a squadron of their regiments was detached at some considerable distance the medical officer accompanied that squadron, and was supplied with an extra tent or two.

All ambulances should be mule ambulances, as if an accident occurs on the line of march a mule ambulance can remove the man to the nearest hospital and rejoin the column, but an ox ambulance performing this is thrown hopelessly out.

The natives attached to the field hospitals have done very good work, so that the services of the few M.S. corps have been made available for attendance on the sick, and the hospitals have in consequence been kept in perfect order, and all sanitary arrangements and conservancy have been carried out in the most perfect manner.

I am not satisfied as regards the cooking in the field, it strikes me as being very rudimentary, and some difficulty has been found in supplying the various hospitals with good cooks, and I attribute much of the dyspepsia and allied complaints to indifferent cooking.

The rations have been very good indeed throughout the campaign, and the bread, as a rule, exceptionally good; had this not been the case some difficulty would have arisen, as much of the biscuit was found to be mouldy through the lining of the boxes not being sufficiently soldered, this would have placed us in some difficulty had we been beyond the reach of supplies to replace the mouldy biscuit, and in contact with an enemy it would have been impossible to supply bread to the troops daily.

The water supply at all the principal camps has been good and fairly abundant, generally from rivers of flowing water or from wells sunk in their beds when dry, very occasionally from springs, as at Brussels and Vryburg, the water has been well kept, and troughs furnished for the horses, and when requiring filtration rough filters were made by the engineers, and when the analyst pronounced the water of doubtful quality it has been boiled.

All sanitary matters have been very carefully attended to, and the camps have generally occupied commanding positions. Each regimental medical officer was responsible to me for the good sanitary state of his camp, and the conservancy also, the quartermasters of regiments being immediately responsible for this, and the camp quartermaster, under the D.A.Q.M.G., being responsible for the combined camps. The trench system of conservancy was enforced, and when the earth was not found to be a good deodorant disinfectants have been used. In permanent camps latterly urine tubs have been used, two being issued per troop. I am confident that no disease can be traced to insanitary conditions, as all orders were carried out with a full sense of the necessity that attached to their issue, and with a result that must prove highly gratifying to all the force.

The country through which this force has passed has been little known even to travellers, and the water question was supposed to present insuperable difficulties, but this apparently formidable difficulty vanished before energy and determination.

The diseases from which the troops have especially suffered are but few; fevers of a low type, and, as I believe, of malarial origin, often complicated with internal congestions and enteric lesions, and where these lesions are present as a direct outcome of the fevers, death very speedily sets in, and, as I hold, not so rapidly when a state of fever is induced by the products from the enteric lesions, either in contact with air or water, and the fever then produced resembles more closely the enteric, as seen at home. These fevers, we were told, would prove very fatal to the force. There were no fevers with this lesion below Taungs, and as disinfectants were very freely used in all cases where this lesion was present the secondary form of this fever seldom occurred. That it comes on at the same time as other fevers, during the latter rains particularly, and disappears when the cold weather sets in in common with other malarial forms of fever; that ague is often present in the latter stages of this fever and is a promising sign; that one post-mortem after prolonged high temperature revealed the ulcers in the small intestines perfectly healed, but the spleen and liver greatly enlarged; that no native follower has suffered from this lesion of fever is curious, as they certainly had their food and water from the same source; and the dragoons, who had suffered severely in Natal, had not one case of fever, where this lesion was ever suspected to be present. That it is the same form of fever as that known as enteric in England cannot be, as in very few of the cases have any of the landmarks of enteric been seen, and it has generally been returned at first under the head of either simple continued fever or remittant fever by observers of very considerable experience and no mean capacity. There is no doubt that acclimatisation lessens the susceptibility to enteric lesion, and I am in favour of using quinine as a prophylactic, especially amongst troops just arrived in the colony, and just previously to the rainy season. The admissions for fever with this lesion have been about equal in the regular and irregular toops, but all the deaths with the enteric lesion took place, with one exception, amongst men of the irregular force, and particularly in very young men of the 1st Mounted Rifles, the corps that I certainly would have named beforehand as the most likely to suffer in this respect. They had recently arrived from England, and had some very young men amongst them. No case of fever or of enteric lesion have been recorded on the return march of the troops.

I have an idea that this disease—fever with enteric lesions—although it cannot be stamped out, can be greatly reduced by treating it as if it were very contagious, and each stool disinfected very carefully and put beyond the power to do harm; this will so diminish the secondary form which can be propagated by bad sanitation or negligent sanitation, but the most dangerous feature of this disease is that men can be in the ranks doing their duty with these ulcers present in their bowels, and thus the spread of this secondary fever be propagated most insidiously.

The fevers increase in severity as you go northwards, and from what I gather from intelligent traders up in the interior this enteric lesion of fever is no new importation by civilization, but has always been associated with climatic fevers. I hardly need enter into the history of any other diseases, when I remark that dissentery has caused but one death and pneumonia not one until the canteens were re-opened, and men depressed with drink were chilled by sleeping where they lay on the feldt, and exposed during a night to the great variations in temperature, measuring sometimes 50°, and so perished after a few days' struggle in hospital to recover the balance of circulation.

The surgery during this expedition has not been increased by actual war, but the great number of cavalry composing the force, and they principally irregular cavalry, have greatly increased the number of accidents, and there have been some few from the accidental discharge of firearms. These have all been successfully dealt with, excepting one case of dislocation of the humerus and fracture of the head of the scapula. After union of the fracture Brigade Surgeon Knaggs attempted to reduce the dislocation, but the fracture gave way again, and as the hospitals were being broken up I invalided the subject of this injury to Netley. No injury has led to amputation. The mule ambulances were of immense service, one being attached to each section; to these, and also the telegraph wire, I am greatly indebted for the completeness with which information was received by me at all times, and assistance sent to out stations to bring in sick or injured men, so that I was kept informed from day to day of every important occurrence throughout the whole length of the country in occupation by the force.

In conclusion, I feel satisfied that the force could have accomplished the journey to the Zambesi under the same conditions without any very material loss of strength, and had we proceeded further north I had intended issuing quinine prophylactically. Whatever may be said to the contrary it was the absence of the abuse of drink, and—thanks to the G.O.C.—the impossibility of procuring it, especially in the months of March, April, and May, when fever exists, if it does not prevail, and could prove fatal in six days, that caused no aggravation of the cases that existed, and may have caused the low mortality when enteric lesions existed; and I hardly think there is an officer or man in the force who is not now convinced that the great health of the force is mainly attributable to this cause—enforced moderation.

APPENDIX No. IX.

CASE OF DIAPHRAGMATIC HERNIA OF THE STOMACH.

By Surgeon J. Boyd, Medical Staff.

In the Eastern Soudan Expedition, in the early part of the year 1884, the subject of this case sustained a very severe spear wound of the left side of the chest. After some time, however, the wound healed, though on full inspiration and on any exertion there was a tumour or protrusion about the size of half a small orange. A pad having been contrived to support this he returned to duty, and appears to have been able to perform it satisfactorily.

On the 13th January 1886, about 6.30 p.m., I was called to this patient, and found him suffering from intense pain, chiefly referred to the region of the stomach and extending upwards towards the shoulders, also outwards towards the sides, and even in the spine itself. No change of position afforded relief. There was great irritability of the stomach, but the amount ejected was small, consisting of mucous, and at times grumous matter resembling altered blood. Pulse 75, volume good. Respiration normal, except during paroxysms of pain, when it was accelerated. The respiratory murmur ceased to be audible at about two fingers' breadth above the left nipple line.

Owing to the great agony he was suffering a proper physical examination could not be made, and the patient would not give any details as to how the pain began ; but it seems that about 5 p.m. that afternoon he was "tent pegging," and, missing his peg, received a severe shock, and was obliged to dismount on account of a pain in his left side in the situation of the spear wound received in 1884. The pain was not referred to the stomach until he had returned to his quarters.

There was no alteration in his condition until 11 p.m., when the vomited matter increased in quantity and was darker in colour. This seemed to afford some relief, and he had quiet intervals of about 30 minutes' duration, when he was able to lie down, a thing previously impossible ; but the slightest movement brought on a paroxysm of pain, followed by hiccough, retching, and ejection of a small quantity of fluid, but more than the amount taken to drink. This state continued through the night. Morphia was powerless in procuring sleep, though freely given.

About 11 a.m., 18th January, the pain again localised itself in the left side over the seat of the wound. There was dulness on percussion over the left side as far up as the nipple line, and by moving him in the bed a splash could be distinctly heard. The dulness changed with position. Above the nipple line the respiratory sounds were normal. During the afternoon he slept a little under the influence of morphia, but at 6 p.m. all the symptoms became aggravated, and there was some slight dyspnœa. His pulse grew quick and unsteady, he became collapsed, and died exhausted at 10.45 p.m.

At the time the wound above referred to was received it was considered to have perforated the diaphragm, and to have been followed by a hernia of the omentum which sloughed off. A portion of one of the ribs was removed, and the hernia of the lung above described resulted.

The diagnosis formed was that death was caused by hernia of the stomach through the diaphragm, caused by the contents of the abdomen being forcibly pushed against the weakened midriff in the act of tent pegging. This was subsequently proved at post-mortem examination, when the following appearances were recorded :—Lung lying in upper third of thorax ; there was a hole in the diaphragm which would admit of the insertion of both hands flat, its edge firm and elastic. The whole stomach, a great part of the omentum, and about an inch of the duodenum were lying in the thorax above the diaphragm.

APPENDIX No. X.

DESCRIPTION OF A PREPARATION OF THE UPPER PART OF A FEMUR AFTER GUNSHOT FRACTURE SENT TO NETLEY FOR PRESERVATION IN THE PATHOLOGICAL MUSEUM, WITH REMARKS.

By Surgeon-General T. Longmore, C.B., h.p., Professor of Military Surgery.

The following observations accompanied the preparation :—

"*Statement of Case*.—Private. H., 1st South Stafford Regiment, was hit about the middle of the anterior surface of the thigh at the battle of Kirbekan ; antiseptic dressings were applied at the time, and the same evening the limb was examined and a search made for the bullet, but without avail. The femur was found to be fractured very high up. A long outside splint was applied and the dry dressings continued. Two days later the bullet, much flattened, was removed from the upper part of the back of the thigh. The case did well and the patient seemed in a fair way to recover. For some weeks after small fragments of bone came away from the wound. On the return of the river column to Korti the man was sent down the Nile to Halfa where he seemed to improve for a time; but at last exhaustion set in, and he died about the first week in July.

"Post-mortem examination : Several abscesses were found in the liver (pyæmic ?) and the femur was found firmly united. (*See* specimen.)

"(Signed.) H. Ogilvy Stuart,
"Woolwich, 12/9/85. "Surgeon M.S."

Description of the preparation.—The preparation to which the foregoing statement refers consists of the head, neck, great and lesser trochanters, and shattered remains of about 3½ inches of the shaft of a right femur.

The articulating surface of the head of the bone, together with the portion of the neck directly connected with it, show no signs of having been injured by direct contact with a projectile. The head is still coated with the greater part of its cartilage, but the cartilage exhibits numerous spots of erosion, more or less circular in outline, especially at its inner and lower aspect, in the direction of the lesser trochanter.

The great trochanter and part of the digital fossa are in their normal relations to the head and adjoining part of the neck of the bone, but, owing to the displacement of fragments below, the whole of this part of the bone approaches more nearly to a right angle with the line of direction of the shaft than is usual at a soldier's age.

The trochanteric line is interrupted by a linear fracture near its connexion with the lesser trochanter. This cleft, which ascends from the shaft, passes through the trochanteric line, winds round the lesser trochanter, crosses the inner aspect of the neck beneath the site of insertion of the ilio-femoral ligament and inside the capsular ligament, and then descends again to join other lines of fracture in the shaft. The lesser trochanter, together with a portion of the shaft below, is thus marked off and comprehends a portion of the bone which has been quite detached, but which is now firmly though only partially, united to the adjoining parts.

At the upper aspect of the line of fracture just described, just above the site of insertion of the ilio-femoral ligament, a separately detached fragment of bone has been jammed in, and so directed that its projecting apex is turned upwards at an acute angle with the neck. The general direction of the impacted fragment, which is firmly fixed in the adjoining bone, is in a line nearly parallel with that of the neck and head of the bone.

At a distance of about one inch below the lower boundary of the great trochanter a large hollow space commences, and its appearance affords sufficient evidence that the principal point of collision with the bullet, and its penetration into the bone, occurred at this spot. This cavity is without any covering on its anterior and outer aspect; there is merely the gap left by the penetration of the projectile and the loss of the bone, which was probably broken up and dispersed. It has a general conical shape; the base, or broadest part, of the hollow is bounded above by the cancellous structure at the root of the great trochanter, and the cavity tapers down what remains of the shaft for about 2¼ inches. It is bounded laterally at its upper aspect by two longitudinal fragments, which have become united more or less completely with the upper part of the bone, but lower down it is bounded not only by these two, but also by a third fragment of the shaft; all these fragments have been displaced in various directions. They are separated from each other by certain intervals above, but are connected together below, where they join with the unbroken portion of the shaft.

On a general review of the specimen, the largest fragment, which is nearly 3 inches in length by about 1½ inches in width, and includes the lesser trochanter, is seen to have become united at all its margins to the bone, which has remained in contact with it. The union is especially close above where the line of fracture passed through the neck of the bone. The general appearance of this fragment indicates that it was not denuded of its periosteum. The impacted fragment in the neck is also firmly secured at its base by osteophytic enlacement with the edges of the adjoining bone, but the greater part of the fragment wears the aspect of itself being necrosed. Around the edges of the other fragments there are osteophytic outshoots, which, by their connexions, retain the fragments firmly in their respective positions, but in these instances also the greater portions of the fragments themselves present the usual appearances of a necrotic condition. The inner surfaces of the fragments and remains of the shaft which surround the principal cavity exhibit the ordinary aspect left by a suppurating bone cavity.

Remarks.—I have been precise in detailing the particulars of the injury to which the femur has been subjected in this instance, and in describing the actual condition of the bone as it exists in the preparation, for the case appears to involve several points of practical interest, especially as to the difficulties in respect to diagnosis and prognosis, and also in respect to the determination of the proper treatment to be adopted in any case of gunshot wound similar to the one which the preparation illustrates.

The preparation, which at first sight presents the aspect of a fracture of the right femur limited to the upper third of the shaft below the trochanters, is found, on closer observation, to be one of a fracture extending higher up through the neck of the bone. It also exhibits a state of things which shows that the fracture seriously involved the integrity of the hip-joint. It is evident that under ordinary circumstances there would be considerable difficulty in establishing the exact nature and extent of such an injury during life. On making a digital examination through the bullet wound in the soft parts, the finger would discover indications of extensive fracture a little below the great trochanter, but the great trochanter itself, as far as the finger could enter, would be felt to be entire, and its relations with the head and neck of the femur to be normal. The fissured fracture by which the lesser trochanter, together with about an inch and a half of the adjoining shaft of the bone, were separated from the neck and great trochanter, from the deep situation and inner aspect of the parts, could not be ascertained by such an examination any more than the impacted fragment could be felt pointing upwards and inwards under the ilio-femoral and capsular ligaments; and if these conditions were not detected the extreme gravity of the injury would necessarily fail to be appreciated. It would be concluded that the hip-joint and neck of the bone had escaped from injury, and that the fracture was confined to the shaft below the trochanters, and it would be seen that the case was free from lesion of the principal vessels and nerves. There would not even be the complication of the lodgment of the bullet to be taken into account, as the projectile had been felt and removed from the upper part of the back of the thigh on the second day after the wound was inflicted.

If the surgeon then proceeded on the assumption that he had to deal with a comminuted but uncomplicated gunshot fracture of the upper third of the femur he would be acting in accordance with the experience gained in all the principal wars of the last 30 years, if he resolved on taking the necessary steps for trying to obtain union of the broken bone and to save the limb. Conservative treatment has been proved to be attended with less fatal results than amputation or any other surgical proceeding in gunshot injuries below the trochanters and limited to the upper part of the shaft of the bone.

An experienced surgeon, however, might well observe under the circumstances described that there was no proof of the diagnosis of the injury having been fully established, and that in the interest of the patient it ought to be before any plan of treatment was decided upon. A complete and satisfactory diagnosis in such a case could only be attained after free incision of the covering parts, so as to afford an opportunity of ocular inspection and tactile examination. The necessity of a thorough exploration by these means in any case of the kind is the lesson which the specimen seems forcibly to inculcate. If a full knowledge of the extent of fracture in this situation is not otherwise obtainable, and it could not be obtained by examination through the small wound in the soft parts made by a modern rifle bullet, proper incisions should be made in order to remove all uncertainty on the subject. A very similar state of things existed in the most successful case of hip-joint excision which has ever been recorded. Dr. Mursick's well-known case, which occurred during the war of the Rebellion in the United States, all that was at first known was that there was a comminuted gunshot fracture at the upper part of the femur. Three weeks after the man had been wounded it was determined to make an incision for the purpose of removing some loose fragments which could be felt by the finger. The incision was made, and only then was the full extent of the fracture revealed. It was found that the fracture extended through the neck into the joint, and the operation, which was at first little more than exploratory, was at once turned into one for removal of the head and neck of the femur. This patient, who in all probability would have succumbed to the effects of the injury if it had been left to natural efforts of repair, was enabled subsequently not only to walk but also to perform very heavy work without the aid of a crutch or stick. (*See* Report from the War Department, Washington, of January 1869, on "Excisions of the Head of the Femur for Gunshot Injury," page 41, &c.) In a corresponding case, in which a patient was sent from Egypt to Netley as an invalid for a gunshot fracture of the upper part of the femur, an exploratory incision was made, and the hip-joint was found to be implicated in the fracture. Excision was at once performed, but unfortunately without eventual success, for the damage done by the projectile had extended still higher and involved the pelvis. But two advantages attended the proceeding even in this case. The patient was relieved from the excessive pain he had been previously enduring, and life was certainly prolonged by it. In many such cases the full extent of the injury inflicted in this situation by a projectile can only be ascertained by free exploratory incision, and whatever the true nature of the case may be in any particular instance, even if it be one in which conservative treatment without any further surgical interference may be indicated, there is no reason for thinking the condition of the patient will ever be aggravated in any way by the proceeding, presuming the examination is made with proper precautions.

Admitting the exploration to be carried out as described in a given case, and a serious state of things like that which is shown in the preparation under notice to be discovered, what surgical treatment should be adopted? This would indeed be a most difficult and anxious question for a surgeon to settle. Not only the injury itself, but all the conditions under which the patient was placed, would have to be taken into account in determining it. Three coures of proceeding would be open to the surgeon: (*a*) Amputation at the hip-joint, (*b*) excision of the head, neck, and part of the shaft of the femur, and (*c*) conservative treatment. But as regards hip-joint amputation, the mortality attending this operation after gunshot injuries has hitherto been over 90 per cent.; as regards resection for gunshot injuries, over 88 per cent.; and as to conservative treatment, while the prolonged hostilities arising out of the rebellion in the United States led the surgical historian of that war to declare that gunshot injuries involving the hip-joint had been uniformly fatal under conservative practice, the experience of the

Franco-German War, on the other hand, led Professor Laugenbeck to conclude that conservative treatment was less unfavourable than either amputation or resection; the mortality under it having been reduced to 71·6 per cent.

In the case under notice its hazardous nature would be aggravated by the great extent of the damage done to the bone below the trochanters, whether resection were performed or conservation attempted. If the surgeon determined upon performing resection it would be done with the knowledge that, supposing the patient to survive, the limb would most probably be such an incumbrance as to lead to secondary amputation (which is much less fatal, however, in this situation than primary amputation) at some subsequent period. It is evident that whatever course might be adopted the prognosis would be unfavourable in the extreme; and when the climate in which the patient from whom the preparation in the present instance was taken had to be treated, and the necessity of his repeated removal under very difficult circumstances are considered, it would have appeared very remarkable if the termination of the case had not been what it was. The conservative treatment which was adopted appears to have been followed by some results which were calculated to encourage the hopes of the surgeon. But although a certain amount of union between the fragments occurred, the preparation shows that the union was almost entirely confined to portions of the adjoining margins, while the main parts are seen to be in a necrotic condition, which would have led, had the patient lived long enough, to their separation and elimination as sequestra. There is no callus surrounding the broken bone, and the fragments at the principal site of injury are so unsupported, both from within as well as on the outside, that obviously a very small force, locally applied, would have sufficed to break up the amount of union that had occurred. The cancellous structure at the base of the great trochanter is carious. The firmest line of union, it is interesting to observe, is in the direction of the upper part of the fissure separating the lesser trochanter from the base of the neck of the bone.

APPENDIX XI.

REPORT ON THE COMPETITIVE EXHIBITION OF MOVABLE HUT-HOSPITALS AT ANTWERP IN SEPTEMBER 1885, TOGETHER WITH A DESCRIPTIVE ACCOUNT OF THE PATTERN TO WHICH THE PRINCIPAL PRIZE WAS AWARDED.

By Surgeon-General T. LONGMORE, C.B., h.p., Professor of Military Surgery.

In the report on the International Conferences by the representatives of various governments and national aid societies at Geneva in September 1884, which was published in the 25th volume of the Army Medical Department Reports (*see* Appendix No. VI.), I referred to the fact of Her Majesty the Empress of Germany having graciously placed at the disposal of the meeting a sum of 5,000 francs, together with a gold medal specially engraved for the occasion, to assist in the promotion of its objects, and that the meeting had resolved that this donation should be competed for as a prize for the best typical pattern of a movable barrack ambulance, or portable hut-hospital (baraque d'ambulance), a special committee being empowered to make the arrangements for the competition. A programme of the general principles of construction of the hut-ambulance, and of the special conditions necessary to be fulfilled in order to entitle any pattern or model to enter into the competition, was published at the beginning of February 1885, and it was also announced that the competition would take place at Antwerp on the 1st of September 1885. The Belgian Government and the city of Antwerp had offered gratuitously the use of a piece of land for the exhibition of the ambulance huts of full size, together with suitable rooms in an adjacent building for the display of models, plans, and drawings. The ground, which was enclosed, adjoined the park of the International Exhibition of Industry which was open at the time. I was invited to be one of the jury for the adjudication of the prize. The jury, as it was finally arranged, consisted of 10 members, and was international in its composition. His Excellency Professor de Laugenbeck, from Wiesbaden, acted as Honorary President, M. Gustave Moynier, President of the International Committee of the Red Cross at Geneva, as President, myself as Vice-President, and M. Albert Ellissen, engineer, Secrerary of the French National Red Cross Society at Paris, as Secretary. The other members of the jury were selected from Italy, Holland, Belgium, Prussia (2), and England. The decision of the jury, by which the prize was adjudicated to MM. Christoph and Unmack, of Copenhagen, for huts constructed and exhibited by them on Captain Doecker's system, was published in the "Bulletin International," No. 64, of October 1885.

The number of objects sent to Antwerp to compete for the prize was so large that a volume of considerable size might be formed in giving a detailed description of them. Seventy-nine exhibits were announced to be on their way to Antwerp, but only 60 of this number had arrived before the termination of the date fixed by the committee of management as the limit of time for the examination. Of these 60 objects, 13 were ambulance huts of full size and proportions, 36 were models on a reduced scale of one fifth of the full size, and 11 of the exhibits consisted of plans, drawings, and descriptions without models. In consequence of the great number of objects exhibited, the improvements shown in many particulars among them, and the expenses undergone by the exhibitors in their construction, conveyance, and erection on the ground at Antwerp, a communication was made to the Empress by the jury through Baron Knesebeck, Her

Majesty's Secretary, who was present at Antwerp, and this communication led to the Empress generously placing at the disposal of the jury a second gold medal and 10 silver medals. The second gold medal was awarded by the jury to a French society for two ambulance huts constructed on the well-known Tollett system; the 10 silver medals to exhibitors of various nationalities; while, in addition, diplomas of "Honourable mention" were awarded to 15 other exhibitors. The examination of the systems of construction embodied in the numerous objects and plans exhibited, and the study of the various ways in which the desiderata specified in the programme were sought to be accomplished, occupied the time and attention of the jury very constantly and closely during the 10 days from the 1st to the 10th of September, which had been announced as the day for closing their proceedings.

At the termination of their work the jury expressed their desire that the hut-hospitals and various schemes exhibited, especially those which had been recompensed as particularly meritorious, should form the subject of a special publication, accompanied by an album of drawings and plans, so as to make the views and labours of the constructors generally known and to place them on permanent record. Surgeon-General Dr. Coler, of the Prussian War Ministry, Upper Staff Surgeon Dr. Werner, also attached to the Ministry of War at Berlin, and M. Albert Ellissen, engineer, were nominated as a committee for taking steps to obtain the accomplishment of this proposal.

Although it would be impracticable, from want of time and space, to furnish a report on merely the leading features of the 60 objects and plans which were exhibited in competition for the prize, it has occurred to me that it might be generally useful to give a description of the most noticeable points in the hut-hospital patterns to which the Empress's prize was allotted, and also to mention the qualities which they were required to possess. The remarks which follow embrace these two topics.

The conditions laid down in respect to the construction of the hut-ambulances competing for the prize, and the chief qualities expected to be embodied in them, may be briefly summed up under the following 12 headings:—

1. The hut-ambulance must be capable of being rapidly erected and got ready for use, either in time of war or during epidemics of disease.
2. It must be so arranged as to be complete in itself or to form part of a large hospital establishment.
3. It must be capable of being easily taken to pieces; of being easily carried from place to place, either by railway, on ordinary roads, or along country lanes; and of being easily put together again in a fit condition for receiving sick and wounded patients.
4. It must be sufficiently solid and stable to resist such force of wind and storms as a building is liable to be exposed to in a temperate climate, and it must be adaptable for use either in summer or winter.
5. The materials employed in its construction must be impermeable to wet, and as far as possible incombustible.
6. Each ambulance hut must be capable of containing 12 beds, and there must be a cubical space of at least 12 cubic meters for each bed.
7. A closet must be annexed to each hut.
8. The parts for each hut must be so ordered that specially skilled workmen are not needed for mounting or dismounting the hut.
9. The floor must be even, and must not be in contact with the ground.
10. Sufficient ventilation must be provided for even in cold weather when the windows and doors are closed.
11. The arrangements for heating must suffice for giving the interior air of the hut in winter a temperature of about 15° Reaumur, or 18·75° Cent.
12. Both the weight and price must be reduced as far as possible, consistently with the other named conditions.

Description of the Prize Ambulance Huts.—Two patterns were exhibited by the competitors who carried off the prize. Both were constructed on similar principles, but they differed from one another in their dimensions. The general aspect of the two huts from the outside was very similar to the appearance of the wooden huts which are common in our standing camps, but they differed materially from them in the particulars of their construction. They were designed on a system introduced by Captain Doecker of the Danish army, and were constructed by Messrs. Cristoph and Unmack of Copenhagen, to whom the prize was awarded. The special construction of these hospital huts may be best explained, perhaps, by showing the manner in which they fulfilied the 12 requirements which I have already enumerated.

1. In order that the hut may be capable of being quickly erected, and got ready for use, all the parts of the hut are fashioned beforehand so that they have only to be brought and put together wherever the hut may be wanted. These parts being arranged for fitting into packages of a size suitable for easy transport, the whole hut can be carried by ordinary means of conveyance to any place where its erection may be necessary.

2. On the hut being erected, it is complete in itself as a ward for the reception of patients. If a large hospital establishment were required, it would be obtained simply by increasing the number of the huts. The huts are furnished with side and end doors, so that communication with adjoining huts, if several are placed together, is rendered easy.

3. The separate parts of each hut being joined together by a system of rabbeting, screw fastenings, and clamps, they can be separated from each other and the whole hut taken to pieces by reversing the order in which the hut has been put together. As soon as the parts are detached from one another they can be replaced according to their numbers in their proper packages, and so be rendered capable of being transported elsewhere as easily as they were brought to the place from which they have to be removed. The packages are of suitable size for being placed in carts or wagons, and can be thus carried along ordinary roads or railroads. The arrangements of the several parts of each hut were so plainly indicated by numbers, that, according to statement, from six to 12 hours were sufficient to take a hut to pieces and to pack it, or to unpack and erect it, with the help of a party of ordinary unskilled workmen.

4. Each hut was so solidly fastened together, and of such height and form, that there was apparently no reason for doubting they would withstand as great an amount of wind pressure as any ordinary wooden hut of corresponding size could resist.

A sample frame was shown with a layer of cork between the outer and inner coverings as a method of maintaining the warmth of the interior of the hut, and guarding against variations, of temperature, in climates subject to extreme cold; while for protecting the interior of the hut against the direct influence of the solar rays on the roof in a hot climate, it was proposed to extend an awning below the ceiling, at a short distance from it, or to place one above the roof itself. The latter plan is stated to have been employed in Egypt, and to have proved satisfactory.

5. The materials employed in the construction of the huts were wood, a peculiar substance called "carton-feutre," or card-felt, glass for the windows, and iron for the stove. Wood was employed for the skeleton of the hut, for the frames of the various parts or panels used for forming the walls and roof, and also for the flooring. The card-felt was used for filling up the frames, each frame being covered on both sides by it, leaving a space of an inch or so between the two coverings. These card-felt frames or panels, when joined together and fitted to their supports, constituted the walls and roof of the hut. The card-felt is a very rigid, close-grained material, as hard as slate without its brittleness, and comparatively light in weight. The card-felt used for the outer surface of the frames, and therefore for the outer surfaces of the roof and walls of the hut, is impregnated with some apparently oily substance which renders it impermeable to rain; the felt used for the inner lining of the frames, and therefore for the interior surfaces of the walls and roof of the hut, is impregnated with silicate of soda for the purpose of rendering it uninflammable. The windows are set in ordinary wooden frames. The ridge lines of the roof are forced together by a special clamping instrument supplied with each hut, and then bolted by screw-bolts, so as to leave no crevice between the two adjoining ridge pieces. In a similar way care is taken to prevent any crevice remaining open at the parts where the roof ventilators are inserted, and at the opening through which the stovepipe protrudes. After the two huts were erected on the exhibition ground at Antwerp they were painted over with oil-colour, so as to render them more completely secure against the admission of rain, and to give them uniformity of colour and appearance. The walls

both inside and outside could be thoroughly washed and cleansed, or the parts on being separated could be disinfected throughout.

6. The two huts exhibited by Cristoph and Unmack were severally distinguished by being marked A and B. Each hut was arranged for holding 12 beds. The hut marked A was rather loftier and narrower than the hut marked B. The cubic contents were 170 cubic metres or 14·17 cubic metres per bed. The cubical air space of hut B was 163 cubic metres, giving 13·58 cubic metres per bed.

7. The closet is inside the hut at one corner, partitioned off from the rest of the ward by panels similar to those forming the walls and roof. Access to the inclosure in which the closet seat was contained was by a door which opened from the ward. This appeared to me to be the most objectionable feature in the building, for however well and specially the inclosure might be ventilated within, or the closet seat disinfected, it would be impossible to prevent some fœcal effluvia from entering the ward every time the closet door was opened. Certainly if the hospital hut were used for British patients, a latrine would have to be established outside at a suitable distance from the building, and the inclosure referred to, if retained, would be converted to some other purpose; the closet air would not be allowed to mix, with the air of the ward.

8. It has been already shown that by the separate parts forming each hut being successively numbered, and by being prepared beforehand for fitting into one another, no difficulty would be experienced by men of ordinary intelligence as regards the erection of either hut with the aid of a few printed directions. Specially skilled workmen would not be necessary for the purpose, though it would be advantageous for a person possessing some acquaintance with work of this kind to be present and to direct the proceedings.

9. The evenness of the floor of the hut was secured by the boards being planed and varnished. Its contact with the ground was obviated by the boards being laid on joists, while these joists in turn were kept from touching the earth by being laid level on stones. The floor was laid down in parts, each part consisting of a number of boards nailed together on cross-pieces in convenient sizes for carriage. These parts were rabbeted for being joined together, and when connected they formed together a compact floor. The joists on which the floor was laid were impregnated with a tarry preparation as a protection against the effects of damp. The floor was varnished on both surfaces, below as well as above.

10. Ventilation was provided for by a certain number of trapped openings in the floor, by the doors and windows, by side ventilators beneath the roof, and by two ridge ventilators. In summer the ventilation would be effected by the various openings enumerated; in winter, if the weather were so cold as to necessitate the various inlets and outlets being closed, the ventilating stove or stoves used for heating the hut would become the means of removing the vitiated air, one or more of the floor openings, according to circumstances being left open for inlet purposes.

11. The heating arrangement was by a ventilating stove, and its size, draught of air, and diameter of escape pipe, were calculated on the supposition that the whole of the air of the hut should be entirely renewed twice in an hour, and that the greatest inside temperature necessary would not exceed 20° Cent. or 68° F. It was stated that the stove furnished was quite adequate to the maintenance of the temperature notified in the programme, viz., 15° Reaumur or 18·75° Cent., equivalent to 65¾° F., even with an outside temperature of 32° F. below freezing point.

12. The weight of one of the huts, packed up in cases, and including the floor and joists, but without the stove, was given at 3,350 kilogrammes, nearly 3 tons 6 cwt. If the wooden floor and joists were not required, but a floor made of sand, asphalte, or other materials procured locally were used instead, the weight would be reduced to the extent of 1,070 kilogrammes, or a little over 21 cwt. One kind of stove with the flue exhibited weighed 390 kilogrammes, the other 140 kilogrammes, or respectively, 7 cwt. 75 lbs., and 2 cwt. 84 lbs. The weight of the other hut was rather less, but the difference was practically of no importance, amounting only to about 22 lbs.

The price of the first hut above referred to, including the floor and joists, without the stove, was 172*l*. 16*s*., if a single hut only were required, and it was offered to be delivered in London at this price, or 160*l*. each if a quantity were ordered. The price of the second hut above referred to was about 6*l*. less.

Concluding remarks.—The most conspicuous advantages of the prize huts for ambulance purposes appeared to be the following: (*a*) the panel arrangement by which the parts were enabled to be placed in packages of convenient shapes and sizes for transport by road or railway, and protected against injury; (*b*) the manner in which the parts composing each hut were prepared for being fitted together; (*c*) the methodical arrangement which enabled the assembled parts to be manipulated and put systematically together by ordinary workmen for the erection of the hut in a single day or less, and equally enabling the hut to be taken down, packed, and removed elsewhere; (*d*) the compactness, stability, and serviceable qualities of the hut when erected; (*e*) the waterproof quality and moderate weight of the substance employed for covering the panels and forming the principal part of the walls of the hut; (*f*) the adequacy of the means of light, aeration, and heating; (*g*) and, lastly, the ease with which the walls, roof, and floor of the hut could be cleansed and disinfected when necessary. Some of the other huts exhibited possessed similar qualities in a greater or less degree; a few of the individual qualities in a superior degree, but none appeared to combine the whole of the qualities above enumerated to the same extent as the Doecker huts.

APPENDIX XII.

CASE OF ANEURISM OF THE DESCENDING AORTA.

By Surgeon-Major M. Johnson, Militia Medical Staff.

No. 353, Sergeant F. B., who served in the 12th Foot and had much foreign service, was transferred to the staff of the auxiliary battalions of the 4th Foot stationed at Lancaster.

He was 37 years of age, and was admitted to hospital on July 22nd, 1885.

His medical history throws no light on his present state. For some time previous to his admission to hospital he acted as letter carrier to the depôt, and has been observed to walk with his hand on his loins. On admission he was pale and anxious looking, but not emaciated.

Examination of the chest by auscultation revealed no unequivocal signs of grave disease. The heart sounds normal, temperature normal, pulse 80, respirations hoarse at apex, with slight râles, about 20 per minute. Percussion of abdomen reveals dulness over the liver, the stomach also dull (after breakfast).

A second examination revealed the heart sound at the base of left lung abnormally loud, and heard over a larger surface of the chest than normal. No bruit at any point. After a while, July 31, a small enlargement of about 2 to 3 inches diameter began to appear at the base of the left chest posteriorly, in which pulsation was strongly felt, but no bruit audible; complained of occasional pain in back, but not permanent. Consultations with civil medical friends at last diagnosed distinctly aneurism of aorta. From this date to that of his death (24 Nov.) the size and pain of the tumour increased. The tumour at the time of his death had increased until it extended to a diameter of about 10 inches perpendicular and 7 horizontal, or measuring around the tumour on the skin about 14 × 10 or 12 inches of elevated surface. The pain, towards the last, was very severe, but was controlled by opiates, the dose having been increased to about 100 minims of laudanum twice, and sometimes three times, a day.

His pulse and temperature never much altered, the former numbering about 80, the latter normal. Respiration was not much impeded while kept in one (horizontal) position. The absence of general symptoms, such as nausea, distress of breathing &c., was remarkable. As regards the diagnosis of the tumour, the strong pulsation, the absence of fluctuation, and the maintenance of a normal aspect of the skin, pointed so much to an aneurismal sac that I always resisted the proposition of acupuncture exploration.

On sectio cadaveris the fat on the body generally was fairly maintained. The tumour, on opening the chest, at once became visible, both in the chest and abdomen, having displaced the diaphragm, and with it the lower lobe of the left lung, the stomach, and the spleen, and having carried with it to the front the left kidney. It extended up as far as the level of the nipple, and down below the umbilicus, into the left iliac cavity. On making section of the corium, which was still entire though slightly ecchymosed, a mass of coagulum was found, which, on removal, revealed a cavity large enough to contain a full-sized man's head. The whole interior was lined (especially towards the front) with semi-organised masses of coagulum as large as a lobe of lung. On removal, the surface of the aperture from the descending aorta, which just admitted of the end of a finger, was found corrugated and rough; the distal opening was smooth. The size of the cavity will explain the absence of any bruit or abnormal sound. The left chest contained a large quantity of clear fluid. The base of the lung was adherent to the costal pleura, the right lung was free, both lungs fairly healthy, heart healthy, but displaced forward and upwards, the stomach and spleen pushed upwards, while the left kidney lay on the anterior surface of the aneurismal tumour. The four lower ribs of the left side were absorbed to within an inch of their attachment with the spinal column, which was protected by the layer of dorsal muscle intervening; the remaining ribs were forced upwards and pressed together, the lower three or four forming an upper margin or capsule for the aneurism. Owing to the good state of nourishment of the body this could not be felt during life.

In consequence of the mental condition having remained unaltered to the last, no section of the head was made.

APPENDIX XIII.

CASE OF GUNSHOT INJURY OF THE HEAD.

By Surgeon E. M. Wilson, Medical Staff.

Private K., 20th Hussars, aged 30, was struck by a bullet on the right side of the head, near the vertex, at the engagement at Ginnis, on 29th December 1885, while in the act of mounting his horse, and fell to the ground stunned. He was conveyed to the field hospital, where he remained for several days. It was discovered that the skull was injured, and several small pieces of bone were removed. The temperature was slightly raised (about 100° Fahr.), and there was great loss of power in the left arm, but no symptoms of compression of the brain.

On January 7th he was carefully transferred to Halfa, and did not suffer any inconvenience in transit, being able to sit up and smoke and take his food well.

On January 8th he arrived at Halfa, and the wound was again examined. Some more fragments of bone were removed, leaving a small circular cavity exposed about the size of a *4d.* piece, through which the pulsations of the brain could be observed. In a swelling posterior to the wound beneath the scalp a large fragment (about half) of a bullet was found and removed, together with a portion of the helmet cover. The patient was then drowsy but not comatose, and there was paralysis complete of the arm and partial of the leg on the opposite side of the body (left). After the operation it was noticed that all symptoms of pressure became less marked; the patient was cheerful and the temperature normal.

It was said that the Arabs were in the habit of splitting their bullets, as they were running short of ammunition, and it was therefore hoped that all foreign bodies had been removed.

For several days the patient seemed to be progressing favourably; he took his food well, was allowed up, and took gentle exercise. There was slight discharge of laudible pus from the wound, which appeared to be closing, and granulating healthily.

On February 3rd (five weeks after the injury), however, he began to complain of frontal headache, and on that afternoon he had an attack of convulsions localized to the left arm, side of thorax, and neck, which lasted three hours. On the 5th the convulsions reappeared, but not so severely as on the previous occasion, and for the first time since his admission his temperature was raised to 99·2.

On the 6th February the wound was examined again and some dead bone detected, but it was thought not to be loose. There was free discharge of healthy pus from wound; no increase of paralysis; muscles of face, pupils, and tongue not affected. His general condition seemed to improve; on the 7th his temperature was normal and appetite fair; but on the 8th he began to fail again, with difficulty being persuaded to take his food, slight headache, slight rise of temperature, 100·4, and some drowsiness.

On the 9th the note is, "Patient remains in same drowsy condition; complete paralysis of left arm and partial of leg; pupils and face unaffected; complains of dull pain in back of head and neck. Constipation and anorexia; morning temperature 98·6, evening temperature 100°; pulse 80; respiration 24. Given calomel and seidlitz: and potassium bromid, hyoscyamus, and camphor in draught at night." But the medicines had no effect; the drowsiness increased; and at 12 noon on February 10th he became, rather suddenly, completely unconscious.

A consultation having been previously held, the patient was at once placed upon the operating table, and the seat of injury freely exposed by appropriate incisions. Some small pieces of dead bone were discovered and removed with the forceps; one piece being perpendicularly imbedded in the hernia cerebri; and a fracture was found running backwards and outwards from the hole through which the hernia protruded. As the compression was not relieved it was thought that the cause must lie beneath this fracture, and a crown of trephine was accordingly raised on the posterior border of the aperture; when the other half of the bullet was found beneath the dura mata, lying in the brain substance, in a small abscess cavity, and removed, together with a fragment of the internal table with particles of scalp and hair. A small quantity of pus followed, and the patient then gave some slight indications of returning consciousness. The wound was then carefully cleaned and dressed, and the patient put back to bed and given an enema of castor oil and soap. The pupils, which were considerably dilated before the operation, now returned to almost their normal size, and the breathing became quiet and regular. Respiration 24, pulse 80, full and steady temperature 102°.

The slight return of consciousness was, however, not maintained, and the patient gradually passed into a state of complete coma. Temperature rose to 103·6, and the pulse to 120, while the breathing became more and more difficult, until he died at 8 p.m., 43 days after the injury.

THE POST-MORTEM EXAMINATION 15 hours after death.

On removing the integuments the right parietal bone is seen to have been perforated about 1½ inches from the coronal and the sagittal sutures, the aperture being of an irregular lozenge shape about 1¾ by ¾ of an inch, the longest diameter from before backwards and slightly outwards (this includes the portion removed by the trephine).

The whole of the outer table has disappeared, and the greater part of the inner. From this cavity a fracture runs in a straight line almost into the sagittal suture at its mid-point; and a second runs rather obliquely backwards, outwards, and then inwards into the lambdoid suture.

At the posterior border of the cavity, on the piece of bone included between these two fractures, the crown of trephine was raised, and the bullet found beneath; having evidently travelled from before backwards, driving some of the internal table before it. At the anterior border of the cavity portions of the internal table are still attached though slightly depressed. On removing the skull-cap, the dura mata is seen to be inflamed, lacerated, and adherent to edges of original wound in bone. Patches of lymph are scattered about, particularly round the tentorium, and some small spiculæ of bone and lead are discovered matted into it. On removing the dura mata an irregular cavity about the size of an hazel nut is found in the right hemisphere, the edges being softened and broken down. From this a small opening leads downwards and slightly inwards and backwards to a small abscess-cavity situated over the ventricle but not communicating with it. It contained about an ounce of curdy pus, part of the same which had escaped at the operation. Its walls were red and thickened, and the surrounding brain substance was inflamed and softened. The remainder of the brain and the other organs were healthy.

REMARKS.

It is evident that the abscess slowly formed beneath the bullet (which of itself had not caused compression), and gradually exercised pressure. On removing the bullet a small quantity of pus escaped, causing the slight transient return of sensation; but the relief was incomplete, the opening being blocked by the brain substance falling back into its place on the removal of the bullet; and the abscess was practically unopened till after death.* Had it been evacuated consciousness might have returned, but looking at the damage done to the brain, and the ragged, inflamed condition of the dura mater, filled with minute fragments of bone and lead, it seems hardly possible the patient should have recovered.

As complete an examination as was compatible with caution was made at the operation, but it was felt that to prolong investigations in the brain itself, the object of which was uncertain, was to diminish his already small chance of life; and it was hoped that the more obvious causes of compression being removed, the slight return of sensation noticed might be succeeded by still further improvement. Unfortunately this hope was not destined to be realised.

The case was thought worthy of being recorded on account of the curious splitting of the bullet upon the bone, and for the length of time the patient lived with so large a piece of lead in his brain, the weight being 180 grains: no dangerous symptoms appearing till nearly the end of the sixth week.

APPENDIX No. XIV.

NOTES ON CASES OF HYDROPHOBIA.

In connexion with the serious epidemic of hydrophobia which prevailed in London during the year 1885, the following brief notes of 23 cases of that affection which occurred in the Bengal Command taken from a return furnished by the Principal Medical Officer in India, will be of interest.

The period embraced by the return is 15 years, viz., from 1871 to 1885.

It is to be regretted that in a subject of such importance fuller details cannot be given; but as the information is obtained from returns extending over so long a period, and relating to so large a country, an exhaustive report cannot be looked for in each instance.

The cases, which were all fatal, are reported in the chronological order of their occurrence as follows:—

1. Lance-Corporal B——, 25th Regiment, age 28, stationed at Bareilly, was bitten by some rabid animal, species not stated, on or about 15th June 1871. He was brought to hospital on 24th August 1871, suffering from unmistakeable symptoms of hydrophobia, to which he succumbed the following morning. On admission there were seen "the cicatrices of wounds on the outer edge of " the palm and little finger of right hand," and he "presented some muscular " tremor and frequent spasms in respiration with a sense of constriction re- " ferred to the sternum. Requested that no water should be given him, as he " said a choking sensation was produced, attributed by him to 'wind on the " stomach.' The dyspnœa and frequent gasping continued, the latter being " induced by the slightest movement of cold air. Once a distinct state of " episthotonos was noticed, lasting for a second or two during these gasps. " The difficulty of breathing increased continuously. At 2 a.m., on 25th, he " was very restless, yet sensible, and while being held down at his own request " 'lest he should do some mischief,' being, as he said himself, "venemous"; " seven spasms came on and death by asphyxia at 3.10 a.m."

2. Sergeant E——, R.A., age 29, stationed at Meean Meer, was bitten by a dog in the month of December 1870. The exact date is not given. The injury healed up quickly, and an interval of about nine months elapsed before symptoms of the disease manifested themselves. On 13th September 1871 he was admitted to hospital, and on 15th September 1871 he died. The record of the case is as follows:—"The man received a bite from a young dog (while " playing with it) on the left hand in December 1870. The dog was not " known to be rabid, but it was immediately killed. The man never entirely " ceased to think about it, and his suspicions were confirmed when he felt a " horror of water. There was no painful sensation in the hand. The symp- " toms on admission were stiffness and uneasiness in the left shoulder and " left side of neck; no pain in the left hand; anxiety and restlessness, with a " shuddering horror of water, dread of swallowing any fluid, painful spasms " of the muscles of the neck, especially on the left side, pulse bounding. The " spasms became by degrees more severe and more frequent, and were caused " by the sight or sound of fluids or by a breath of air. During a spasm he " had to be restrained by two men to prevent his doing injury to himself or " his attendants. Total inability to swallow anything at length ensued. The " pulse soft and irregular rose to 120, and death took place during a spasm, " apparently from asphyxia. The duration of the illness was about 48 " hours."

3. Private F——, the Buffs, age 30, stationed at Benares, is said to have been bitten by some animal on the 10th November 1871, and was admitted to hospital on 19th December 1871. He came of his own accord to hospital on the morning of that day complaining of pain in the left shoulder and difficulty in swallowing, stating that otherwise he felt quite well. The disease proved fatal in about 48 hours, but neither on admission or at any time after it did he mention the fact of his having been bitten. He was ordered a draught to test his power of swallowing, and on seeing the glass containing it, after some hurried respirations, he seized the vessel as if determined to succeed, but when

he brought it to his mouth violent spasms of the muscles about the throat ensued. By making great efforts, however, he managed to swallow most of it. The spasms gradually increased in violence, and towards the close even a slight current of air or a person approaching his bed occasioned a convulsive seizure. Some hours before death there were violent convulsive fits, but he was quite conscious to the last. He died 21st December 1871.

4. Private R——, 5th Fusiliers. Age 22. Stationed at Nowshera. Of this case it is merely recorded that the man died of hydrophobia on 17th January 1871.

5. Sergeant T——, Royal Artillery. Age 27. Stationed at Meerut. This man was bitten by a pariah dog at the sergeant's mess about two months before the symptoms of the disease supervened. He paid no attention to the bite at the time, but two days afterwards came to hospital and had the wound excised and cauterised. He died of hydrophobia on 26th November 1872, 18 hours after the first symptoms made their appearance.

6. Private S——, 11th Regiment. Age 32. Stationed at Morar. In this case it is merely said that the man "died 13th September 1872. A fatal case—"somewhat obscure—of hydrophobia."

7. Private B——, 55th Regiment. Age 22. About six weeks before admission to hospital he was bitten by a little dog on the back of right hand, near the first joint of the index finger. The dog at the time it inflicted the injury was being teased and excited by the men in the barrack room in which Private B—— lived. The wound was more a scratch with the dog's teeth than a bite. The animal was not supposed to be mad, and no treatment was adopted; the man's wound being neither sucked, burned, or excised. On the 30th June 1873 he was admitted to hospital in a very exhausted state, suffering from hydrophobia, of which he died the following day.

8. Private S——, 3rd Regiment, aged 37, died of hydrophobia at Fort William on 30th August 1874, three days after the disease became developed. The record states that the man was bitten by a cat, and that he was treated with chloral.

9. Driver S——, Royal Artillery, aged 21, when stationed at Meean Meer "came to hospital on 19th December 1874, complaining of fever. Skin hot "and dry. He remained in hospital next day, and on the evening of that "day it was observed that all attempts to take fluid caused severe spasms of "the muscles of the mouth, neck, and chest, gasping respiration, and symptoms of suffocation. This condition continued, the spasms becoming gradually more severe; the pupils were widely dilated, and bowels constipated, "and the temperature 99·2. On making inquiries it was found that the man "had been bitten by a dog some three months previously, which had bitten "several other men also, and being supposed to be rabid was shot. There "was no doubt as to the disease. About 9 a.m., 22nd December (third day of "the disease), on some beef tea being presented to him, a spasm of unusual "severity supervened, and after a few seconds he fell back dead on his bed."

10. Private R——, 14th Foot, aged 27. Station Sitapur. "This case ran an "exceedingly brief course. The man came to hospital on the evening of the "15th March 1875, complaining of headache and weakness. His disease was "not recognised till midnight on 16th, when difficulty of swallowing became "markedly observable, accompanied by a dread of fluids or of a current of "air. Convulsions shortly afterwards supervened, together with a constant "hawking up of viscid ropy saliva, and at 8 a.m. on 17th instant he expired "rather unexpectedly. No history of his having been bitten by a dog for six "years could be ascertained."

11. Private T——, 51st Regiment, aged 25. Station Peshawar. "Admitted "to hospital on evening of 12th August 1876 suffering from febricula and "great pain in the head, which was very hot. On the following day these "symptoms were unchanged. On 14th August he complained in the morning of slight difficulty in fetching his breath, as he expressed it, and also "of pain in the muscles of the neck. Countenance very anxious. The respiration throughout both lungs was rather exaggerated, but no rales or crepitus "existed. Heart sounds normal. As he said he had some tightness across "the abdomen he was ordered a purgative and fomentation. At 2 p.m. he "complained of not being able to swallow, and of a feeling of suffocation and "of great pain round the neck, the muscles of which were intensely rigid and "thrown into a state of great spasm. He gradually got worse. Even the sight of

" fluids or the least breath of air (the punkah had to be stopped, although
" the day was very hot and close) threw the muscles of the neck into most
" violent spasms. He was unable to lie down; his countenance was still very
" anxious, and there was a flow of viscid saliva. He eventually became de-
" lirious, and died comatose at 8 p.m., 14th August 1876. There was nothing
" to account for these tetanic spasms. The man stated positively that he
" had never been bitten by any animal, but all the symptoms were indicative
" of hydrophobia. Turpentine stupes and mustard to the neck and chest
" appeared to give him relief. He was unable to swallow anything. The
" post-mortem examination revealed nothing."

12. Gunner B., Royal Artillery. Aged 32. Stationed at Calcutta. "Ad-
" mitted with symptoms of ordinary fever on the morning of 14th November
" 1877. Towards evening the first symptoms of hydrophobia appeared. There
" was spasm of the glottis and great dread of water in fluid in any shape. On
" the morning of the 15th he felt rather better, but towards evening the
" symptoms became aggravated, and the sight of fluids brought on severe
" spasms of the glottis and diaphragm. Towards midnight he was much worse.
" At 7 a.m., on 16th, his appearance was wild and excited, and the very name
" of water caused a fit to come on. At this time his condition was very
" distressing to witness. His face bore an expression of horror and dread.
" His features were ghastly in the extreme, complexion dusky, eyes glassy
" and fixed. He kept gesticulating with his hands, and pointing to his
" mouth, his power of speech being quite gone. Once or twice an attempt
" was made to administer medicine, but on each occasion it was repelled with
" a motion of his hands and a look of dread. All this time he appeared quite
" conscious, and seemed to suffer much from the frothy mucous accumulating
" in his throat, so much so that he kept on endeavouring to dislodge it with
" his fingers. He continued to get worse and worse, and at 9.15 a.m. on the
" 16th November 1877 he died suddenly from exhaustion. The post-mortem
" examination did not reveal anything abnormal. All the organs being
" healthy."

13. Private C——, 17th Regiment, aged 30, died of hydrophobia at Rawul Pindi on 4th April 1880. No particulars or information are given in his case nor in that of—

14. Private S——, 51st Regiment;

15. Private B——, 63rd Regiment; and

16. Gunner R——, Royal Artillery, who are all reported as having died of hydrophobia.

17. Private B——, Scottish Rifles. Aged 24. Station Cawnpore. Admitted into hospital 17th February 1883. Died 20th February 1883. The symptoms on admission were those of muscular rheumatism in the right shoulder, with spasmodic closure of the glottis on attempting to swallow liquids. As the disease progressed wild delirium set in with the expectoration of viscid mucus, which clung about his gums and was with difficulty got rid of: also marked reluctance to make any attempt to swallow water as it brought on a spasm, but he took milk and beef tea readily. Towards the close he became quieter and conversed rationally during the intervals of convulsions, and though there was no evident sign of exhaustion he died during a spasm of apparently less severity than that preceding it. Though there was no history of a bite, by any rabid animal obtainable, the symptoms observed during life, together with the post-mortem appearances, leave little doubt as to the true nature of the case. The softening of the spinal cord in the dorsi-lumbar region with congestion and also general congestion as recorded in previous cases of hydrophobia were here most marked.

18. Gunner P——, Royal Artillery. Age 30. Station Umballa. Admitted to hospital 19th February 1884. Died 24th February 1884. There was no history of canine inoculation. The immediate circumstances preceding the appearance of hydrophobia in this patient were disturbances of the sexual system. He admitted indulgence in sexual intercourse to an excessive amount, and emissions of semen were easily produced without sexual contact. The symptoms on admission were pain in the legs of a neuralgic character, and towards evening mental excitement for which he was ordered a sedative draught. On the morning of the 20th the following symptoms were present:— On approaching him and causing a current of air to pass over his face his

respiration became of a spasmodic gasping character, with a hoarse loud inspiratory noise. Any attempt at swallowing, and even the sight of fluids, caused tetanic spasms, during which he leant forward and his eyes protruded. The spasms were confined to the muscles of the pharynx. He complained of phlegm in the throat choking him, and spat up a considerable quantity of frothy saliva. By strong mental effort he swallowed his medicine. Solids could be taken, but fluids were very repugnant to him. Intellect clear. On the 21st cutaneous irritability was less, and he gulped down milk, &c. with an effort, but want of power was observed in the lower extremities. Up to the 22nd he seemed to be improving. The spasms were less severe, and he took nourishing food fairly well. His temperature, which before had not been more than one degree above normal, went up to 100·4° Fahrenheit, and his vital powers began to fail. These symptoms of failure of the vital powers increased his legs became completely paralysed, and he was unable to lift his arms. He lost the power of controlling his urinary bladder, but knew when micturition took place. Intellect remained clear up to the 23rd, when he became partially unconscious; in drinking he snapped at and bit off a piece of the cup. On 24th February at 2 p.m. he was unable to take food, and died at 6.30 p.m. of asthenia. Temperature just before death went up to 104° Fahr.

Extract from post-mortem examination.—" Skull —" Vessels on the surface of the dura mater congested. Brain weighed 3 lbs. 3 oz., slightly congested, " otherwise normal. Spinal cord congested towards upper end. Opposite, about " the 8th dorsal vertebra, the substance of the cord was soft, almost of the con- " sistence of condensed milk. On examining a portion of this part of the cord, " under a power of 250 diameters, the nerve cells were found to be granular " and broken up; not a single healthy cell could be detected in this portion."

19. Boy P. R., age 14, 6th Dragoon Guards, station Sialkot, was bitten (by what animal not stated) on 16th January 1884 in the " middle finger of " the right hand, by which the nail and the skin were torn off. The boy was " 17 days in hospital for the bite. Six or seven days after his discharge he " showed a dread of water when sent to wash in the morning for parade." He was re-admitted to hospital on 12th February for hydrophobia and died on 14th February 1884.

20. Private W. H., East Surrey Regiment, age 22, station Bareilly, was bitten on 25th May 1884. The part bitten was not stated, but is supposed to have been the left forearm. After an interval of about 80 days symptoms of hydrophobia manifested themselves on 13th August 1884. Remarks: " Badly " bitten by a native dog. The dog was killed by one of his comrades, and the " man immediately sent to hospital when his wounds were washed and freely " touched with nitrate of silver. He remained in hospital 23 days, and was " discharged to duty. Patient presented himself on morning of 13th August " 1884 complaining of pain in his back and shoulders, the result, he said, of " throwing a heavy shot. Shortly after admission the symptoms of hydropho- " bia commenced to develop themselves. Patient died rather suddenly in a " spasm at 3 a.m., 14th August 1884. There was no complaint of pain during " the case at the seat of the bite and the usual symptom of viscid saliva collect- " ing in the mouth was not well marked." Extract from post-mortem exa- " mination. " Five scars on back of left wrist, one in front; nerves of forearm " apparently healthy."

21. Private J. M., Royal Welsh Fusiliers, age 25, stationed at Dum Dum, was bitten on the index of left hand and the thumb of the right hand on 25th December 1884. After an interval of 66 days he was admitted into hospital for hydrophobia on 2nd March 1885. Remarks: " He was bitten by " a dog which had been going about the barracks. He is also said to have " been bitten by a dog about a year previously. He was a man accustomed " to shoot wild animals. He and another man killed the dog which bit " him on 25th December 1884. He said himself he did not think there was " anything particular the matter with the dog. Another man said he con- " sidered it mad, which seems to be the general opinion. Admitted into " hospital on the 2nd and died on 4th March 1885.

22. Private J. H., Royal Welsh Fusiliers, age 21, stationed at Dum Dum, was bitten on the knuckle of third finger of left hand on 25th December 1884, and after an interval of 89 days was admitted into hospital on 24th March 1885 for hydrophobia. " Remarks: " On 25th December 1884 he was bitten

" by a dog which is stated to have been mad. The dog was confined and
" teased it is said and bit several men. Private J. M., Royal Welsh Fusiliers,
" who died of hydrophobia on 4th March 1885, was bitten on the same day by
" the same dog." Admitted to hospital 24th and died 25th March 1885.

23. Private R. W., Cheshire Regiment, age 22, was bitten by a dog in the right leg on 13th August 1885. After an interval of 67 days he was admitted to hospital for hydrophobia on 19th October 1885 and died the same day.
" For four days previous to his admission he had been drinking very heavily,
" mostly of beer and rum. On admission six separate scars on the leg in-
" dicated where six of the dog's teeth entered the flesh. The symptoms of
" the disease were developed sooner, probably than they would otherwise have
" been, by the amount of drink he had had previously. At first it was difficult
" to tell whether he had hydrophobia or delirium tremens."

APPENDIX XV.

STATISTICAL NOTES ON SUICIDE IN THE ARMY DURING THE YEAR 1884.

The number of suicides of non-commissioned officers and men in the year 1884 was 46, of which 15 occurred in the United Kingdom and 31 in foreign stations. In the previous year the total number was 52, of which 21 occurred at home and the remainder abroad.

The ratio of suicides in the whole army was 2·61 per 10,000 of strength, showing a decline of ·36 on that for 1883.

Taking the suicides among the troops at home and those on foreign stations separately the ratios were 1·73 and 3·46 per 10,000 respectively; the former being lower than the corresponding rate in the previous year by ·70 and the latter by ·04 per 10,000.

The proportion of suicides occurring abroad to those occurring at home was about two to one.

The subjoined table shows the ratios of suicides for the five years ending 1884, from which it will be seen that suicide in the army has decreased since 1882 both at home and abroad.

—	Ratio of Suicides per 10,000.				
	1880.	1881.	1882.	1883.	1884.
Army at home - - -	2·16	1·93	2·65	2·43	1·73
Army abroad - - -	4·28	3·76	4·38	3·50	3·46
Whole army - - -	3·25	2·87	3·52	2·97	2·61

The next table shows the comparison between the ratios of suicide in the whole army during 1884 per 10,000 soldiers at certain periods of life and those of the male population of England in similar periods of life (taken from a decennial average table given in the Registrar General's Report for 1880).

Ages.	1884.		Ratio per 10,000 of Suicides of Male Civilians at similar periods for the average of 10 Years.
	Suicides of Soldiers.	Ratio per 10,000.	
20–24 - -	14	1·74	·65
25–34 - -	24	4·20	1·04
35–45 - -	7	5·53	1·80

In this comparison the rate of suicides in the army between 20 and 24 years of age inclusive is observed to be about 2½ times as great as that of the civil male population at the same age; in the second period, 25 to 34 years of age, it is about four times as great; and in the third period, 35 to 45 years of age, the rate in the army is about three times as great as in the civil population.

With regard to the army at home only, the following table shows the rates of suicides of soldiers per 10,000 of strength as compared with those of the civil population at the same periods of age as taken above:—

Ages.	1884.		Ratio per 1,000 of Suicides of Male Civilians at similar periods for the average of 10 Years.
	Suicides of Soldiers at home.	Ratio per 1,000.	
20–24 - -	3	·91	·65
25–34 - -	6	2·84	1·04
35–45 - -	5	6·19	1·80

From this it is observed that in the first period, 20 to 24 years of age, the ratio of suicide among soldiers is 1½ times as great as that among civilians; in the second period, from 25 to 34 years of age, it is about 2¾ times as great; and in the third period, 35 to 45 years of age, it is rather under 3½ times as great.

The next table has been prepared to show the per-centage of different modes of suicide among soldiers and among civilians, the former calculated from returns for 1884 and the latter from returns in the Registrar General's Report for 1883:—

Modes.	Per-centage. Army.	Per-centage. Civilians.
Gunshot - - - -	69·6	7·8
Cut-throat - - - -	10·9	19·3
Hanging - - - -	2·1	38·8
Drowning - - - -	2·1	19·7
Poison - - - -	6·6	12·3
Fracture (jumping from height, &c.) -	8·7	2·1
Total -	100·0	100·0

The very great prevalence in the army of suicide by gunshot is at once observed, amounting to 69·6 per cent. as compared with 7·8 per cent. among civilians. This of course is due to the possession of arms and ammunition by the soldiers. From this table it would appear that suicides by cut-throat or poison are about twice as prevalent among civilians as among military, drowning about nine times, and hanging about 19 times as prevalent. Fracture of the skull by jumping from height is in this return four times more frequent among soldiers than among civilians.

The following points regarding suicide in the army in 1884 may also be noticed:—

In one battalion three suicides occurred during the year, and in four battalions there were two suicides respectively. In one battery also there were two cases. The remaining cases were all single instances in different corps.

The average age at which suicides took place was 28⅓ years, and the average service 8¾ years, which shows that change from civil to military life, with its restrictions and discipline, is not, as has been sometimes stated, a frequent cause of suicide.

With regard to motive for the suicidal act, in 27 instances none is returned, or could be discovered; in 4 cases domestic affliction or infelicity is given as the cause; in 3, drink, more or less directly; in 3, financial difficulties; and in the remainder the causes were varied, fear, disappointment, despondency, &c. In two cases a verdict of *felo de se* was returned, but in the majority of instances suicide while in a state of temporary insanity was the verdict.

With reference to the comparative prevalence of suicide in the different arms of the service, the ratio per 10,000 for the year under report is found to be for the cavalry 1·24, for the artillery 2·95, for the engineers *nil*, and for the infantry 2·81 per 10,000. In the previous year the rate for the engineers was highest, those for the artillery and cavalry higher than the present ones, but the rate for infantry was lower.

Of the total number of suicides in the year 1884, 4 per cent occurred in the cavalry, 20 per cent. in the artiliery, *nil* in the engineers, and 76 in the infantry.

APPENDIX No. XVI.

DESCRIPTION OF HUTS FOR TROOPS AT SUAKIN.

When the encampment of the troops at Suakin came under consideration, the question arose as to the most suitable description of hut for the purpose of protecting them against heat during the summer.

Experience in India and Egypt led to the conclusion that the roof should be constructed of such material and thickness as to exclude the heat of the sun's rays, that the hut should be provided with verandahs, and that it should be capable of the freest ventilation; in brief, that the troops should, as it were, live in the open air under the shade of a thick cover, and that the nearer they could approach to the condition of a person provided with a large and thick umbrella, as a protection from the sun, the better.

The hut has been designed to accomplish this as far as practicable. The roof of cork, covered with waterproof Willesden paper, may be taken to represent the protective covering, and the metal cowls along its ridge the metal tip or ferule of the umbrella; while, in respect of ventilation, with the body of air interposed between the roof and ceiling, the latter being made very pervious vertically, and the ward or barrack space beneath supplied with permeable walls of matting set in frames and removable at will, an occupant of the hut may be practically said to live in the open air.

The bed of air above the ceiling communicates, at the ends and sides, with the outside air, and it is probable that the metal cowls when heated will produce, or at any rate aid in producing, a free upward movement of the air.

The walls of the outside verandah are to be provided locally with bamboo chicks or matting, to roll up at will, so as to exclude the sun when down, or allow of any breeze passing into the inside of the hut when up. The boarded sides will protect the beds from direct draught; and the lowest board along the sides of the hut is hinged and moveable so as to admit of the floor space being "flushed with air" when required.

The doorways will be provided with chicks of permeable matting.

The huts are intended to be placed with the ends E. and W. and the sides N. and S. so as to obtain the benefit of the prevailing wind.

The hut encampment at Suakin provides for officers, officers' mess, soldiers and hospital huts.

The accompanying drawings, numbered 1, 2 and 3, are intended to illustrate the construction and general arrangement of the hospital huts; the other huts are similar in construction, differing only in a few minor details according to requirements.

It will be seen from the drawings that the hospital huts are 47′ 4″ long by 21′ 4″ wide, and intended to accommodate 12 beds, giving a cubic space of 850 feet per bed; the floors are raised 18 inches above the level of the ground to admit of a free circulation of air underneath.

The timbers for the superstructure are secured to the ground sills and plates or roof by means of stirrup irons, thus dispensing with mortice and tenon framing.

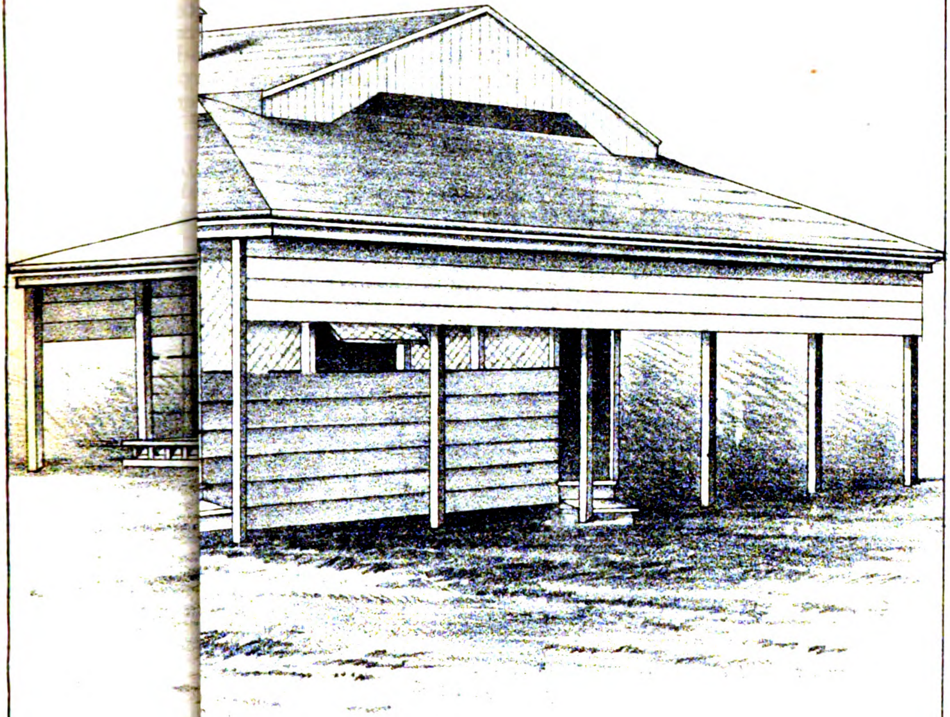
The sills on which the superstructure is fixed are placed on cross sleepers, and secured by means of elm stakes 4 feet long, driven into the ground.

The sides and ends of the huts for a height of 3 feet from the floor are boarded, the bottom board being hung to open outwards when required; above this height and up to the ceiling line, the space is filled in by two rows of skeleton framed shutters covered with Madagascar matting. These shutters are fitted with pulleys and lines to enable them to be opened and closed from the inside of the huts.

There is a floored verandah on the north side of each hut sufficiently wide to enable the invalids to be moved out in their beds if necessary.

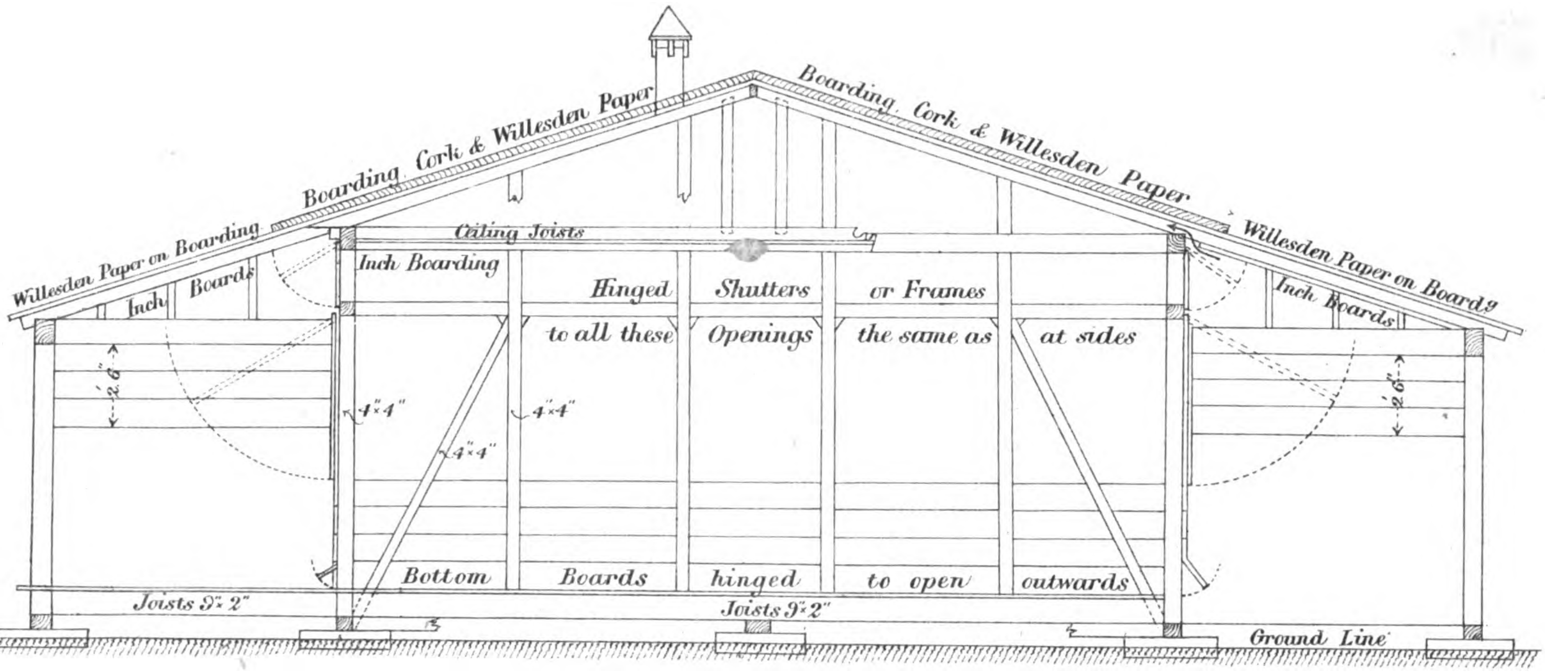
At the south-east corner are lavatories and earth closets, and at the south-west corner is the principal entrance to the hospital, with an orderly's room inside.

Nº 1.



Dangerfield Lith. 22 Bedford St Covent Garden. 2.86 11483

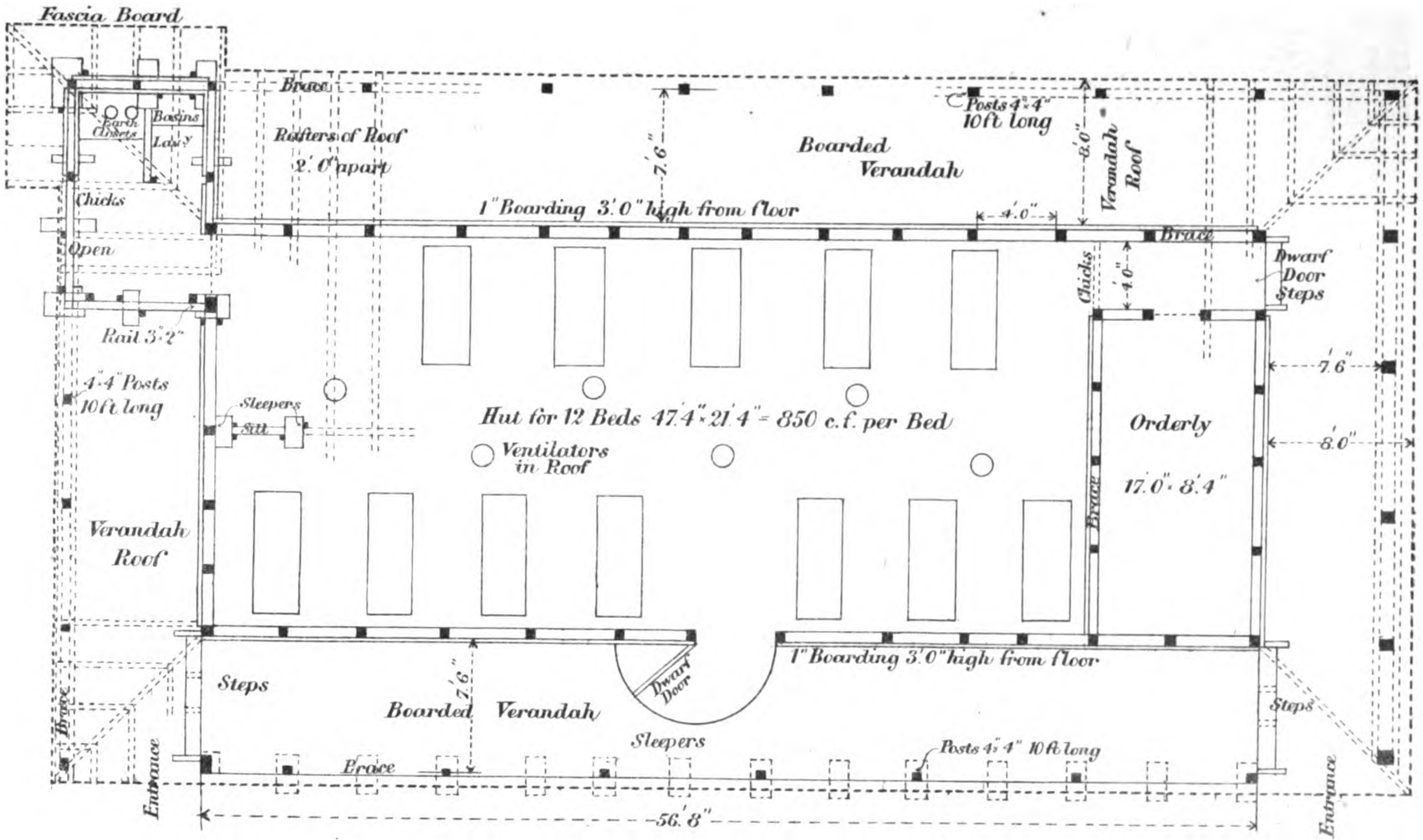
Nº 2.


Willesden Paper on Boarding
Inch Boards
Boarding Cork & Willesden Paper
Ceiling Joists
Inch Boarding
Boarding Cork & Willesden Paper
Willesden Paper on Boards
Inch Boards
Hinged Shutters or Frames to all these Openings the same as at sides
2.6"
4"×4"
4"×4"
4"×4"
2.6"
Bottom Boards hinged to open outwards
Joists 9"×2"
Joists 9"×2"
Ground Line

Scale 5 feet to an Inch.

Dangerfield Lith 22 Bedford St Covent Garden 2.86.11483.

Nº 3.



Scale 10 feet to an Inch.

The ceilings of the huts and verandahs are of wood boarding, the roofs are formed by nailed boarding on the rafters covered with cork slabs and waterproof Willesden paper.

Means of ventilation are provided between the ceilings and the roofs, extracting cowls being fixed in the latter.

For the design may be claimed simplicity of construction, good arrangement from a medical point of view, and economy.

APPENDIX No. XVII.

LIST OF OPERATIONS PERFORMED AT THE ROYAL VICTORIA HOSPITAL, NETLEY, DURING THE YEAR 1885, WITH SHORT ABSTRACTS OF THE MORE IMPORTANT CASES.

By **SURGEON-MAJOR C. H. Y. GODWIN, M.S., Assistant Professor of Military Surgery.**

Operations.	Number of Cases.	Diseases.	Results.				Remarks.
			Completely successful.	Partially successful.	Failed.	Died.	
LOWER EXTREMITIES.							
Breaking down adhesions in knee joint.	1	Fibrous ankylosis.	1	—	—	—	
Sequestrum removed from tibia.	1	Necrosis - -	1	—	—	—	
Sequestrum removed from metatarsus.	1	Ditto - -	—	1	—	—	
Amputation of femur, lower third.	2	1 popliteal aneurism diffused; 1 gunshot fracture of leg.	2	—	—	—	
Amputation of leg, lower third.	1	—	—	1*	—	—	*Died of phthisis.
Amputation of great toe.	1	Necrosis - -	—	1	—	—	
Tenotomy, flexor longus pollicis.	1	Contraction, following gunshot wound of calf.	1	—	—	—	
Ligature of femoral artery in Hunter's canal.	1	Secondary hæmorrhage after amputation.	1	—	—	—	
Knee joint opened up and drainage tubes inserted.	1	Chronic disease -	1	—	—	—	
UPPER EXTREMITIES.							
Bullet extracted -	1	—	1	—	—	—	
Amputation through elbow joint.	1	Flail arm after resection.	1	—	—	—	
Amputation, fingers	2	1. A withered index finger after loss of 2 distal phalanges. 1. Ring and middle finger.	2	—	—	—	
Excision of elbow joint.	1	—	1	—	—	—	
GENITO URINARY.							
Hydrocele - -	2	—	—	2	—	—	
Urinary fistula -	1	—	1	—	—	—	
NECK.							
Laryngotomy -	1	Chronic laryngitis.	1	—	—	—	
TRUNK.							
Tumour sub. axillary space.	1	Sarcoma - -	1	—	—	—	

Operations.	Number of Cases.	Disease.	Results.				Remarks.
			Completely successful.	Partially successful.	Failed.	Died.	
RECTUM.							
Division of sphincter and collateral sinuses.	6	Fistula in ano -	5	1	—	—	
Clamp and cautery	2	Internal hæmorrhoids.	2	—	—	—	
Ligature - -	1	Internal hæmorrhoids.	1	—	—	—	
HEAD AND FACE.							
Removal of tumour	1	Sebaceous cyst -	1	—	—	—	
„ growth, lower lip.	1	Epithelioma -	1	—	—	—	
Excision of eyeball	5	—	5	—	—	—	
Removal of sequestrum, lower jaw.	2	Consequent on abscess.	2	—	—	—	
Totals - -	38		32	6	—	—	

NOTES on some of the more important Cases.

Excision of the eyeball.

1. No. 419, Private G. Willis, 2nd Gloucester Regiment, aged 28 years. In January 1885, while in camp at Chiklee in the Bombay Presidency, contracted purulent ophthalmia, the left eye suffering most, ulceration of the cornea set in, and eventually perforation took place; complete disorganisation followed, for which he was invalided to England. He was admitted into the Royal Victoria Hospital at Netley on the 23rd November 1885, when the left cornea was found to be opaque, with a central scar where the ulcer had perforated, there was no anterior chamber as the iris seemed to be in contact with the cornea. The globe was shrunken and devoid of all power of vision. He complained greatly of the other eye, which gave every indication of sympathetic irritation, and this led at once to a consideration of the most advisable step, which seemed to be to excise the left globe. This was accordingly done in the usual manner, and the wound healed readily, leaving a capital stump.

2. No. 2,658, Private A. May, 2nd Manchester Regiment, aged 27 years. While marking at the butts at Mooltan, on the 3rd March 1885, was struck in the left eye by a splash from a bullet, a piece of lead, he says, was at once removed from beneath the upper lid by a comrade, and he thought that none had penetrated the globe, but the eye was rendered quite blind. From this time, however, the right eye became painful and sensitive to light. He was invalided home, and arrived at Netley on the 22nd December 1885, when he was found to be quite blind in the left eye, and suffering very much pain from the right. On the 23rd December the left globe was removed, and on examination was found to contain two pieces of lead firmly imbedded in the lens. The wound quickly healed, and now the right eye is far less irritable.

3. No. 1,406, Private J. Copeland, 1st Rifle Brigade, aged 30 years. When marking at the rifle range at Belgaum, on 11th November 1884, received a splash of lead in the right eye, which resulted in total disorganisation of the globe. He was invalided home, and after admission into hospital at Netley the remains were removed by Surgeon-Major Codrington, on account of sympathetic irritation of the left eye, on the 18th May 1885.

4. No. 199, Lance-Corporal A. Eldon, 2nd Hampshire Regiment, aged 22 years. Contracted gonorrhœal ophthalmia in July 1884, which ended in total disorganisation of the left eye. Considerable sympathetic disturbance of the right eye was set up, which led to his being invalided home, and after his

arrival at Netley the left globe was removed by Surgeon-Major O. Codrington on the 9th of June 1885.

5. No. 2,721, Private M. Hoolihan, 2nd Royal Irish Fusiliers, aged 29 years. When at Halifax, N.S., was kicked in the eye with a boot on the 6th December 1884, which totally destroyed it. Sympathetic irritation was set up in the right eye, and consequently, upon the man's arrival at Netley, the remains of the left globe were removed on the 9th June 1885 by Surgeon-Major O. Codrington.

Amputation of thigh, ligature of femoral artery in Hunter's canal.

No. 2,022, Private G. Marshall, 1st Berkshire Regiment, aged 24 years. Was shot through the leg at Buller's zareba, 22nd March 1885. The bullet entered the middle of the leg, posterior to the inner edge of tibia, passed in and splintered the fibula. The wound bled freely at the time, and on the voyage home in the s.s. "Iberia," in fact, there seem to have been repeated attacks of secondary hæmorrhage, and several attempts were made to reach the bleeding vessel. On his journey to Netley by rail, 20th April 1885, a free hæmorrhage again occurred, and this led Surgeon-Major Codrington to decide to remove the limb at once, which was accordingly done by amputation above the condyles of the femur. The tissues were much infiltrated, and very unhealthy; however, the wound had almost healed by 17th May, except in a small spot which was indicated by the beating of the popliteal artery, when on this date the artery suddenly gave way, and a fearful hæmorrhage ensued. This was, however, checked in time to save his life, and the artery was tied in Hunter's canal. The man made a good recovery.

Amputation of leg.

No. 4,780, Private H. Cox, 1st Rifle Brigade, aged 20 years, when serving in India in the hot weather of 1884, found his ankle swelling without any known cause. He suffered from pain, especially at night, and was invalided home on account of it in the September of that year. In April 1885 fluid was felt in the joint when it was aspirated, and shortly afterwards the joint was freely opened, since when there has been a continuous discharge. In August the foot and ankle had become altogether disorganised, but his general condition had been so bad that any further operative interference had been dreaded. Now, however, the great drain upon him by the profuse discharge, and the constant pain which he suffered upon the least movement, rendered it imperative to remove the mass of disease at whatever risk. Accordingly, amputation in the lower third of the leg was performed on the 5th September by skin flaps. The operation gave him great relief, stopped the drain of pus, and enabled him to change his position with facility; and though his life was not greatly prolonged, yet he gained freedom from pain in his last days, and as this was the object of the operation it may be said to have been a successful one. The wound itself healed without suppuration, but the disease of the lung rapidly advanced, and he died of phthisis on the 14th October 1885.

Poplitieal aneurism amputation.

No. 5,105, Sergeant F. Hills, 3rd Battalion, Grenadier Guards, aged 27 years, when serving at Suakim in March 1885 began to complain of pain and stiffness in the right calf; the pain gradually became severe, and rendered it necessary for him to go into hospital. On April 17th the note says, "that the pain "had shifted to the bend of the knee, and there was considerable effusion "into the joint." In May the pain became greatly aggravated, and of a throbbing character, and the whole limb below the knee swelled to a considerable extent. The treatment adopted was to raise the limb and flex the leg upon the thigh, but this seems to have increased his suffering, and on the 15th May he was sent on board H.M.S. "Jumna" for conveyance home, where he arrived on the 16th June, and was at once sent to Netley. At this time the leg was greatly swollen, and the pain excessive. Flexing the leg, tourniquets, position, &c., &c., were all tried, but failed to diminish the pulsation. The pain and general œdema of the limb being now on the increase, the joint containing fluid, and the tissues over the aneurism decidedly getting thinner, and becoming discoloured, led to the opinion that amputation was the only remedy. This operation was accordingly performed by Surgeon-Major Codrington on the 26th June in the middle third of the thigh by a long anterior skin flap. The arteries were found to be thickened, but without calcareous deposit, drainage tubes were inserted, and the parts brought together. The wound healed well without discharge, and he was sufficiently recovered to be well enough to proceed to his Regimental hospital on 20th August 1885.

Resection of elbow joint amputation.

No. 1,660, Private G. Jukes, 1st Shropshire Regiment, aged 26 years. Was shot in the right elbow at Suakim in March 1885. The joint was excised three days afterwards, the wound healed quickly enough, but he had no power whatever in the forearm, it was simply an useless appendage. After a considerable delay, and then at his own urgent request, the forearm was removed on the 31st August by skin flaps. The wound healed readily without any suppuration. No doubt he was a decided gainer by the operation, as it relieved him of a useless member. He was discharged on the 13th October 1885.

Excision of elbow joint.

No. 2,435, Private J. McLonghlin, 1st Royal Welsh Fusiliers, aged 30 years. Always a healthy man, was attacked with fever in Dum-Dum in the cold season of 1883–4, and was sent to the convalescent depôt at Darjeeling in April 1884, in consequence of chronic inflammation of the elbow joint, which first commenced when recovering from the fever. The bones became affected, the joint stiff, and pus escaped from several openings. In November 1884 he was sent on board-ship for passage to England, and arrived at Netley in January 1885, when the elbow was greatly swollen, the bones of the articulation being enlarged for a short distance above and below the joint, which was flexed to a considerable angle and fixed. On the outer side of the joint were two openings, also another below the olecranon, and the tissues all round were hard and brawny. Patient complained of an aching pain which had existed for some time. On January the 12th the joint was well examined by Surgeon-Major Tobin, who on the succeeding day excised it, making one long incision on the posterior aspect of the joint. Ether was given, and an Esmarch's bandage used to prevent loss of blood. The bones were found to be much diseased; therefore, after the ends had been resected a gonge was freely used to remove any doubtful bony tissue. The parts were brought together and dressed antiseptically. The wound healed slowly, carious bone continued to come away, and fresh sinuses to form, and it was not until Christmas 1885 that the arm could be said to be well. He then had a very fairly useful arm which he could flex and extend, and use for all ordinary purposes. He was discharged on the 8th February 1886.

Operation upon a knee-joint.

No. 28, Private Leopold Ross, 2nd Royal Sussex Regiment, aged 23 years. States that when at Chichester in 1884 he slipped and fell, hurting the left knee. It became swollen, red and stiff, but after two months' treatment he returned to duty, and went out to Malta with his Regiment. Here he says he could only do light duty, and walking was painful; and any jar of the foot induced sharp pain, and contraction of the limb. He, however, managed to accompany his Regiment to Egypt, and after four month's duty he fell again, which obliged him to go into the citadel hospital Cairo, on the 9th May, with a swollen and painful knee-joint, and this continuing, he was invalided home, arriving at Netley on 4th July 1885. His leg was then somewhat flexed at the knee, and any attempt at extension gave rise to severe pain. The least impact between the joint surfaces produced sharp pain, and also when the patella was touched. He complained of constant tenderness on the inner aspect of the knee-joint, increased by pressure, of a continued gnawing pain within the joint, and of the leg starting at night when falling off to sleep. At times the joint looked puffy and contained fluid, which disappeared again. Treatment of various kinds was tried, rest, blisters, inunctions, but after a time ice constantly applied was the only thing that relieved the gnawing pain. Any vibration, such as shaking the bed, or walking across the room, caused him such suffering that an operation seemed necessary with a view of bringing about ankylosis. Accordingly, on the 3rd November, when under the influence of ether, and an Esmarch's bandage having been applied, a free incision was made on either side of the patella, thoroughly opening out the joint, but no erosion of cartilage could be detected. A drainage tube was then placed through the joint, and the wound edges brought together and dressed with a full gauze dressing, and the limb put up in a Gooch's splint. The pain after this operation quite disappeared, his appetite returned, and he slept well; the temperature rose to 100° Fahr. on the morning after, but soon became normal, the wound was dressed at long intervals, and the drainage tube gradually shortened. On the 22nd November the note says the wounds were quite superficial when they were dressed with boracic acid ointment, and the limb put up in plaster of Paris. He has now a good deal of movement in the joint, perfect freedom from pain, or any uncomfortable symptom, and is able to get about quite freely with crutches, as he is afraid to trust himself without them. He will be discharged shortly to go to Australia, where his friends live.*

Laryngotomy.

No. 2,609, Private J. Roach, 2nd Royal Irish Rifles, aged 23 years. Was invalided from Halifax, N.S., for secondary syphilis in December 1884, and on admission into the Royal Victoria Hospital, Netley, on 2nd January 1885, was found to have ulceration of the fauces with destruction of the velum palati. He had also some consolidation of the apex of the left lung. After his arrival the most prominent symptoms were due to a gradually increasing obstruction in the rima glottidis. The laryngoscope discovered a small vegetation on one of the vocal cords.

In the middle of February his voice had sunk to a whisper, and his respiration was accompanied with some stridor, and he had great difficulty in swallowing either fluids or solids. These symptoms varied in intensity up to the 12th March, when they became much aggravated; he began to struggle for breath, the breathing was accompanied with great stridor, and the pulse was rapid and feeble. He had had no sleep for two nights, and was unable to swallow any kind of nourishment.

It was determined to perform tracheotomy, but as he suddenly became so collapsed Surgeon-Major Williamson at once opened the larynx through the crico-thyroid membrane, and inserted a tube, which immediately relieved him. The operation was attended with a good deal of bleeding. Shortly after the operation he was able to swallow fluids with ease. From this time he steadily improved, though for some days whenever the tube was interfered with a troublesome oozing set in. On the 5th April a profuse hæmorrhage was occasioned by changing the tube, which, however, was controlled by the internal administration of gallic acid, &c. The laryngeal mischief gradually subsided, and he gained in flesh and strength, but he still continues to wear the tube though it is blocked. Any hint as to leaving it off produces so much consternation that it has not been insisted upon, though he makes no use of it whatever.

His voice cannot be raised beyond a loud whisper, but in all other respects he is now quite well.

Tumours.

No. 978, Private A. Cutche, 2nd Essex Regiment, aged 21 years. When quartered at Cairo was admitted into hospital for a tumour. He stated that about five years ago he noticed a lump in his left side, just below the axilla, about the size of a walnut; it was painless, hard, and movable. In the beginning of 1885 when up the Nile it began to increase in size very fast, and in March he was obliged to go into hospital as it was now as big as a closed hand and interfered with his arm movements. On the 4th April the tumour was removed by Surgeon Barrow, it weighed 8 oz. He was discharged to duty on the 22nd May. Before, however, leaving the hospital a small growth appeared in front of the site of the first one, and this sent him to hospital again in August, when he was invalided home. On arrival at Netley on 31st August he had a smooth oval shaped tumour about 3 inches by 2 inches under the skin and over the muscles situated in front of the sub-axillary space near the inferior border of the scapula; the scar of the former operation was very visible. On 11th September the tumour (cystic sarcoma) was removed under strict antiseptic precautions, a large artery (sub-scapular) was divided, which bled freely for a few moments. The wound healed up quickly without suppuration, leaving only a linear scar.

Tenotomy.

No. 171, Private, W. George, South Staffordshire Regiment, aged 22 years. Was wounded in the left leg on February 10th, 1885, in an engagement on the Upper Nile. A bullet entered about 2 inches above the external malleolus and passed through the leg posterior to the bones, and made its exit upon the same level, injuring the fibula en route. Between the scars of the two wounds there is now a depressed cicatrix, several pieces of bone have come away, and there is great contraction from the loss of cellular tissue. Due to this loss of soft material the flexor longus pollicis has contracted so much that the great toe was bent to such a degree that it prevented him from wearing a boot. He was invalided from Egypt in July. In October, when in hospital at Netley, the tendon of the flexor longus pollicis was divided subcutaneously, which at once allowed the toe to come straight. His leg, however, was so weak from the gunshot injury that he was invalided on 27th October.

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* March 13th. He can walk well with the aid of a stick, and has free motion in the joint.

Internal Hæmorrhoids.

Three cases have undergone operation for internal hæmorrhoids, two of which were performed by means of the clamp and Paquelin's cautery, and one by the ligature. All proved successful and gave the patients great relief.

Fistula in ano.

Six cases of fistula-in-ano have come under notice. In each case the method used was nearly the same. First, the sphincter ani was thoroughly dilated, then a probe-pointed steel director was passed through the fistula and brought out of the patulous anus, the parts thus bridged were divided by a straight bistoury, then all collateral sinuses were thoroughly traced up and laid open. The wounds were dressed with tight rolls of cotton wool firmly bandaged to prevent all oozing. This dressing was left for two or three days, when a dose of castor oil brought it all away, and then the wounds were dressed with lint soaked in eucalyptus oil 1–10.

Five of the cases did well, recovered quickly, and had full power over the sphincter ani; but the sixth did not do so well, fresh sinuses formed by the side of the bowel, and the man remains under treatment.

General remarks.

In all operations attempts have been made to maintain *asepsis* with good success. To this end Listerian gauze dressings have been generally used in the first instance, and when the wound has become superficial, the boracic acid ointment has been the common dressing. The spray has been in general use, chromatized catgut has been used for ligatures, and sometimes also for sutures.

In large wounds it has been a common practice to put in several large and deep silver wire sutures and to use catgut for the intermediate ones.

Wounds which are already in existence on admission and usually septic have invariably been treated with antiseptic applications, the chief of which has been the mercurial chloride solution.

It has been found to be perfectly safe and a very excellent antiseptic.

The form in use is the liquor hydrargri-bichloridi B. P. one part, water half a part; this gives a solution of 1 in 1,300.

The wood wool cannot be too highly praised as a good dressing for all suppurating wounds. Under its influence the pus lessens, the wound assumes a healthy appearance, and the surrounding tissues are maintained in a healthy condition, never getting in the flabby, sodden condition, which wet dressings are apt to induce. It is best applied in gauze or muslin bags of sizes.

The eucalyptus oil 1–10 has been useful in wounds about the penis, perinœum, and anus.

A wide-mouthed bottle (*e.g.*, an empty quinine bottle) containing a 1-20 solution of carbolic acid is kept in every dressing tray, so that all probes, directors, &c. can always be dipped in it before being used to explore any wound or sinus. This bottle is kept in the tray exclusively for this purpose, so that all unnecessary waste is avoided, and at the same time the antiseptic solution is always at hand, as of course, in the dressing, it is to little purpose carrying out an antiseptic treatment of wounds, if impure probes and directors are, without thought, passed into sinuses long or short.

APPENDIX

Annual Abstract of Meteorological Observations taken

NETLEY. Lat. 50° 51′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Minimum.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	30·035	47·0	38·7	49·7	30·0	2nd	55·0	30th	·266	90·0	77·0	24th
February -	29·834	46·0	37·6	49·4	25·0	3rd	56·5	14th	·251	88·0	75·0	29th
March - -	29·860	46·0	36·0	54·1	26·0	3rd	64·0	15th	·251	85·7	67·0	21st
April - -	29·740	47·0	34·5	56·4	25·5	23rd	65·0	8th	·256	78·7	55·0	26th
May - -	29·935	55·0	42·1	65·5	29·0	1st	81·0	23rd	·362	78·6	68·0	22nd
June - -	29·967	59·0	47·9	71·5	35·0	1st	84·0	25th	·403	74·0	53·0	26th
July - -	29·889	64·0	53·3	74·1	37·0	26th	82·0	3rd	·490	83·3	63·0	18th
August - -	29·944	65·0	52·1	77·9	44·0	5th	90·0	7th	·463	64·5	37·0	30th
September -	29·949	60·0	51·7	69·8	42·0	30th	82·0	18th	·449	73·6	59·0	3rd
October - -	30·054	51·0	42·3	60·5	29·0	29th	67·8	16th	·329	83·9	64·9	27th
November -	30·171	45·0	36·4	50·9	23·0	30th	63·0	2nd	·252	87·2	74·0	9th
December -	29·834	43·0	35·5	47·8	26·0	1st	59·0	26th	·243	89·6	68·0	21st
Mean -	29·934	52·3	42·3	60·6	31·0	—	70·7	—	·334	81·8	63·4	—

GIBRALTAR. Lat. 36° 6′ N.

Month.	Mean Pressure.	Mean, 9 a.m.	Min.	Max.	Abs. Min. Temp.	Day.	Abs. Max. Temp.	Day.	Tension of Vapour.	Mean.	Per Cent.	Day.
January - -	30·372	53·0	53·5	63·7	46·0	13th	70·2	8th	·418	94·9	88·2	10th
February -	30·082	58·0	58·0	64·2	45·0	21st	73·0	15th	·416	93·7	81·4	27th
March - -	29·968	59·0	59·0	64·1	47·4	9th	71·2	21st	·421	90·0	76·5	21st
April - -	29·903	59·0	59·0	65·5	48·0	26th	71·2	5th	·448	90·8	85·2	10th
May - -	30·022	66·0	66·0	71·9	52·6	1st	83·0	28th	·550	88·6	77·0	29th
June - -	30·056	70·0	70·0	76·2	57·5	7th	86·2	30th	·618	88·6	82·6	27th
July - -	30·046	75·0	75·0	81·4	61·6	7th	85·5	25th	·772	89·0	76·8	15th
August - -	30·007	78·0	78·0	86·6	65·0	22nd	94·2	15th	·782	81·5	53·1	17th
September -	30·073	72·0	72·0	78·4	60·0	5th	84·0	11th	·584	76·5	55·2	5th
October - -	30·086	67·0	67·0	70·9	54·4	25th	80·5	6th	·533	83·8	66·0	12th
November -	30·060	64·0	64·0	64·7	53·4	21st	72·0	4th	·457	89·8	07·5	23rd
December -	30·160	55·0	55·0	Out of Order.					·330	83·1	75·0	19th
Mean -	30·069	65·1	54·5	65·6	49·2	—	72·5	—	·527	87·5	73·7	—

SCUTARI CEMETERY. Lat. 41° 0′ N.

Month.	Mean Pressure.	Mean, 9 a.m.	Min.	Max.	Abs. Min. Temp.	Day.	Abs. Max. Temp.	Day.	Tension of Vapour.	Mean.	Per Cent.	Day.
January - -	30·116	53·0	35·0	45·0	24·0	21st	55·8	26th	·201	82·4	51·4	20th
February -	30·159	49·0	34·3	48·7	27·6	21st	59·0	27th	·202	79·9	58·8	27th
March - -	30·023	57·0	40·0	53·5	26·0	17th	71·2	23rd	·238	76·0	46·6	23rd
April - -	29·781	61·0	46·6	64·3	32·0	2nd	80·4	23rd	·318	70·5	47·6	23rd
May - -	29·964	64·0	49·7	72·2	41·6	24th	78·8	8th	·362	66·3	37·4	14th
June - -	29·826	71·0	58·2	80·8	54·0	1st	92·6	4th	·507	69·8	50·8	6th
July - -	29·865	74·0	61·7	85·3	55·2	24th	94·0	21st	·564	66·4	45·4	13th
August - -	29·893	74·0	62·5	83·4	55·8	20th	94·2	7th	·517	60·4	45·4	15th
September -	30·008	69·0	55·1	78·3	49·6	29th	83·8	2nd	·454	64·4	51·2	18th
October - -	30·016	64·0	52·4	69·3	39·0	20th	80·2	12th	·403	76·1	61·0	14th
November -	30·073	56·0	42·7	53·3	30·2	26th	61·2	2nd	·275	84·0	65·0	30th
December -	30·066	56·0	41·9	55·0	33·8	7th	62·4	22nd	·272	80·7	57·0	23rd
Mean -	29·985	62·3	48·3	65·7	39·1	—	76·1	—	·359	73·1	51·6	—

No. XVIII.

at Netley and Foreign Stations in the Year 1884.

Long. 1° 20′ W. Height of Barometer Cistern above Sea, 47 feet.

Mean amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
7·8	3·32	0·67	26th	15	—	—	1	—	5·0	20·0	3	1·0	1·5	0·5	1·5	—	16·0	6·5	4·0	—
7·3	2·54	0·40	9th	15	—	1	1	—	5·5	17·0	—	—	3·0	4·0	5·0	1·5	10·5	3·0	1·5	0·5
6·6	2·47	1·33	3rd	7	—	—	—	—	8·5	17·0	—	1·5	8·0	0·5	5·0	2·5	8·0	3·5	2·0	—
7·2	1·48	0·46	6th	7	—	—	—	—	7·0	18·5	—	—	13·0	2·0	5·5	2·0	4·0	0·5	2·5	0·5
5·6	0·78	0·35	24th	7	—	—	—	—	12·0	12·0	2	0·5	7·0	1·5	4·5	—	12·5	2·0	2·5	0·5
6·2	2·27	1·27	6th	6	—	—	1	—	9·0	14·5	—	8·0	2·5	—	4·0	0·5	4·5	1·5	8·0	1·0
7·3	2·16	0·32	12th	17	—	—	1	—	5·5	18·5	—	0·5	1·0	0·5	3·0	1·5	18·0	3·5	3·0	—
4·0	0·90	0·41	27th	7	—	—	1	—	16·5	8·5	1	2·0	2·0	1·5	6·0	1·0	8·0	5·5	4·0	1·0
5·6	2·47	1·10	3rd	14	—	—	—	—	8·0	12·0	1	—	6·0	—	5·5	1·0	11·0	2·0	4·5	—
5·8	2·12	0·60	28th	9	—	—	—	—	6·5	9·5	3	—	6·5	1·5	1·0	—	8·0	4·5	9·0	0·5
7·2	1·32	0·35	2nd	11	1	—	—	2	2·0	17·5	—	2·0	7·0	1·0	3·5	1·5	5·5	2·5	4·5	2·5
7·7	3·65	0·50	11th	18	1	—	—	—	3·0	22·5	2	1·5	6·0	1·0	1·0	0·5	13·0	2·0	4·0	2·0
6·52	2·12	0·64	—	11·0	0·1	0·08	0·4	0·1	7·4	15·6	1·0	1·4	5·3	1·2	3·8	1·0	10·0	3·0	4·1	0·7

Long. 5° 20′ W. Height of Barometer Cistern above Sea, 53 feet.

6·5	1·62	1·42	1st	4	—	—	—	—	3·5	15·5	—	—	5·0	18·5	0·5	—	1·5	—	5·5	—
5·9	2·28	0·40	10th	9	—	—	—	6	8·5	14·0	—	—	2·0	9·0	1·5	—	0·5	5·5	10·5	—
6·5	2·42	0·48	18th	12	—	—	—	—	5·0	14·0	—	—	—	13·0	2·5	—	1·0	8·5	6·0	—
6·4	6·39	1·35	18th	17	—	—	—	—	5·0	13·0	—	—	—	1·5	0·5	—	2·0	10·0	16·0	—
4·5	1·52	0·45	21st	7	—	—	—	—	13·5	8·0	—	—	3·0	12·0	0·5	—	4·5	10·0	1·0	—
3·5	0·90	0·66	17th	3	—	—	—	—	18·0	3·0	—	—	3·5	15·5	—	—	2·0	9·0	—	—
2·0	—	—	—	—	—	—	—	—	25·0	2·0	—	—	8·0	5·0	—	—	6·5	11·5	—	—
2·5	0·13	0·08	15th	2	—	—	—	9	20·5	1·5	—	—	7·0	12·5	—	—	3·0	7·5	1·0	—
4·0	1·27	0·85	24th	3	—	—	—	—	16·0	6·0	—	0·5	7·0	5·5	—	—	3·5	10·5	3·0	—
5·0	5·16	1·41	6th	14	—	—	—	—	11·5	9·5	—	0·5	10·0	10·0	—	—	2·0	4·0	4·0	0·5
6·0	17·65	4·37	20th	18	—	—	—	—	10·5	14·0	—	—	17·0	8·0	—	—	—	0·5	4·0	0·5
4·0	1·37	0·72	26th	5	—	—	—	—	14·5	4·5	—	—	9·0	1·5	—	—	2·0	3·5	14·5	0·5
4·7	3·39	1·01	—	7·8	—	—	—	1·4	12·6	8·7	—	0·08	6·0	9·3	0·4	—	2·4	6·7	5·4	0·1

Long. 29° 3′ E. Height of Barometer Cistern above Sea, 60 feet.

7·3	5·50	0·98	14th	20	5	1	—	2	5·5	19·5	—	10·0	7·0	1·5	—	3·5	5·5	1·5	0·5	1·5
6·3	1·51	0·66	28th	11	5	3	—	1	7·0	17·0	—	5·0	5·5	7·5	1·0	3·0	2·5	2·5	—	2·0
7·3	1·44	0·36	3rd	15	2	1	1	—	7·0	20·5	—	9·0	8·0	0·5	1·5	4·5	3·5	3·0	—	1·0
5·8	1·00	0·28	15th	10	—	—	2	1	9·0	13·0	—	3·5	7·0	*1·5	0·5	6·5	6·5	1·5	0·5	1·5
4·5	0·34	0·18	30th	6	—	—	—	—	14·0	8·0	—	5·5	14·0	1·5	—	4·5	4·5	—	—	1·0
4·7	3·36	1·27	19th	10	—	1	6	—	13·0	7·5	—	0·5	3·5	2·0	—	9·0	9·0	1·0	1·0	4·0
3·2	1·47	0·78	1st	6	—	—	3	1	18·0	4·0	—	5·0	9·0	3·0	—	7·5	3·5	0·5	—	1·5
4·0	2·10	0·89	17th	8	—	—	2	—	16·0	7·0	—	3·0	15·0	8·5	—	1·0	3·0	—	—	0·5
4·5	3·28	1·95	29th	9	—	—	1	1	12·5	7·0	—	4·5	12·5	6·0	—	1·0	4·0	—	0·5	1·5
6·2	1·75	0·55	1st	10	—	—	1	1	8·0	15·0	—	6·0	6·5	2·0	0·5	2·5	4·0	1·5	1·0	7·0
8·0	4·96	1·80	21st	22	1	1	1	—	4·5	22·5	—	5·0	14·0	3·0	1·0	2·0	1·0	1·5	1·0	1·5
5·8	1·39	0·34	3rd	14	—	—	—	—	12·0	12·5	—	2·5	3·5	4·0	4·5	5·5	5·5	—	—	†5·0
5·6	2·34	0·84	—	11·7	1·0	0·6	1·4	0·6	10·5	12·8	—	5·0	8·8	3·4	0·7	4·2	4·4	1·0	0·4	2·3

* 29 days only.

† ½ day short.

Appendix

Annual Abstract of Meteorological Observations taken

NICOSIA, CYPRUS. Lat. 35° 10′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Minimum.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January	—	—	38·1	59·0	30·0	20th	66·9	14th	·281	87·5	41·7	2nd
February	—	—	38·8	59·3	28·4	14th	68·1	29th	·275	81·5	64·2	10th
March	—	—	41·8	65·3	33·0	12th	75·7	27th	·324	74·5	49·1	13th
April	—	—	48·4	76·3	38·5	4th	86·2	24th	·402	65·3	40·8	23rd
May	—	—	54·6	86·3	44·8	1st	101·0	31st	·405	45·1	29·8	10th
June*	—	—	61·1	94·8	57·0	9th	100·8	1st	·431	38·2	28·1	5th
July												
August												
September												
October												
November												
December												
Mean	—	—	47·1	73·5	38·6	—	83·1	—	·353	65·3	42·3	—

* 16 days only.

POLYMEDIA, CYPRUS. Lat. 34° 40′ N.

Month.	Mean Pressure.	Mean, 9 a.m.	Means of Min.	Means of Max.	Abs. Min. Temp.	Abs. Min. Day.	Abs. Max. Temp.	Abs. Max. Day.	Tension of Vapour.	Relative Humidity Per Cent. Mean.	Minimum Per Cent.	Minimum Day.
January	30·094	50·0	42·0	61·0	29·0	30th	66·0	10th	·277	72·8	43·8	8th
February	30·042	51·0	40·3	62·2	36·0	14th	70·0	8th	·253	63·0	48·4	11th
March	29·966	58·0	47·2	68·1	37·0	14th	82·0	28th	·339	68·0	50·0	28th
April	29·852	66·0	54·3	77·7	47·0	3rd	86·5	25th	·492	76·0	51·8	23rd
May	29·873	73·0	60·5	82·7	52·8	3rd	100·2	30th	·483	57·1	36·0	10th
June												
July												
August												
September												
October*	29·932	77·0	60·4	86·4	53·5	21st	101·7	17th	·504	54·3	29·7	16th
November	29·960	63·0	53·6	73·1	43·3	26th	79·2	1st	·455	75·0	56·7	4th
December	30·100	58·0	51·1	70·5	46·2	10th	75·3	3rd	·365	68·0	36·7	12th
Mean	29·977	62·0	51·1	72·7	43·1	—	82·6	—	·396	66·7	44·0	—

* 24 days only.

MOUNT TROADOS, CYPRUS. Lat. 34° 57′ N.

Month.	Mean Pressure.	Mean, 9 a.m.	Means of Min.	Means of Max.	Abs. Min. Temp.	Abs. Min. Day.	Abs. Max. Temp.	Abs. Max. Day.	Tension of Vapour.	Relative Humidity Per Cent. Mean.	Minimum Per Cent.	Minimum Day.
January												
February												
March												
April												
May												
June*	29·949	65·0	52·7	74·2	45·0	23rd	80·8	29th	·325	53·3	31·0	30th
July	29·880	69·0	55·2	78·6	46·0	23rd	87·5	19th	·318	45·7	26·7	19th
August	29·895	69·0	57·1	79·6	43·0	25th	93·0	3rd	·334	46·9	27·5	4th
September	29·872	59·0	47·0	67·8	37·0	30th	78·0	3rd	·337	68·5	38·4	2nd
October												
November												
December												
Mean	29·809	65·5	53·0	75·0	42·7	—	84·8	—	·328	53·6	30·9	—

* 16 days only.

No. XVIII.—*continued.*

at Netley and Foreign Stations in the year 1884.

Long. 33° 21′ E. Height of Barometer Cistern above Sea, 592 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
3·3	5·56	2·10	30th	14	—	—	—	—	10	11	—	4·0	1·0	4·0	5·0	3·0	4·0	3·0	7·0	—
3·0	4·46	1·87	23rd	7	—	—	—	—	12	11	—	6·0	5·0	2·0	2·0	3·0	3·0	4·0	4·0	—
3·0	1·20	0·54	18th	6	—	—	1	—	19	5	—	2·0	1·0	5·0	3·0	1·0	2·0	10·0	7·0	—
4·5	1·20	0·50	3rd	3	—	—	—	—	14	7	—	2·0	2·0	10·0	—	1·0	1·0	11·0	3·0	—
4·6	1·13	0·72	19th	6	—	1	8	—	12	7	—	5·0	3·0	6·0	5·0	2·0	—	6·0	4·0	—
1·5	—	—	—	—	—	—	—	—	12	—	—	1·0	1·0	1·0	2·0	—	—	7·0	4·0	—
4·0	2·26	0·95	—	6·0	—	0·16	1·5	—	13·1	7·0	—	3·3	2·1	4·6	2·8	1·6	1·6	6·8	4·8	—

Long. 33° 0′ E. Height of Barometer Cistern above Sea, 460 feet.

Mean Amount of Cloud.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
5·0	8·14	2·43	30th	17	1	1	4	—	8	8	—	5·0	7·0	2·0	2·0	1·0	1·0	1·0	12·0	—
4·5	3·59	0·85	15th	10	—	2	5	—	12	5	—	4·0	11·0	2·0	3·0	—	3·0	—	6·0	—
4·5	1·27	0·67	16th	6	—	—	1	—	13	6	—	—	4·0	3·0	4·0	1·0	11·0	4·0	2·0	2·0
4·5	1·02	0·64	4th	5	—	1	1	1	10	6	—	—	0·5	6·0	6·5	2·0	13·0	1·0	1·0	—
4·9	0·29	0·18	5th	6	—	—	5	—	11	6	—	0·5	—	3·5	6·5	11·5	13·0	2·5	0·5	—
3·0	2·10	1·33	27th	3	—	—	—	—	12	2		4·0	0·5	4·0	3·0	1·5	1·5	5·0	4·5	—
3·0	4·92	0·92	22nd	9	—	—	—	—	20	6	—	5·0	2·0	4·0	2·0	1·0	2·0	7·0	7·0	—
4·0	0·34	0·22	22nd	6	—	—	—	—	14	6	—	8·0	3·0	7·0	7·0	1·0	—	4·0	1·0	—
4·4	2·71	0·90	—	7·7	0·1	0·5	2·0	0·1	12·5	5·6	—	3·3	3·5	3·9	4·2	1·5	5·5	3·0	4·2	0·2

Long. 32° 55′ E. Height of Barometer Cistern above Sea, 5,700 feet.

Mean Amount of Cloud.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
2·5	0·36	0·36	27th	1	—	1	—	—	11	1	—	3·0	2·0	—	1·0	1·0	2·0	3·0	4·0	—
1·5	—	—	—	—	—	—	—	—	26	1	—	9·0	8·0	4·0	—	1·0	1·0	3·0	5·0	—
2·0	0·06	0·06	16th	1	—	—	—	—	24	2	—	10·0	6·0	1·0	—	1·0	—	7·0	6·0	—
3·0	0·53	0·42	7th	2	—	—	—	—	19	4	—	12·0	4·0	2·0	—	1·0	1·0	7·0	3·0	—
2·2	0·24	0·21	—	1·0	—	0·2	—	—	20·0	2·0	—	8·5	5·0	1·7	0·2	1·0	1·0	5·0	4·5	—

Appendix

Annual Abstract of Meteorological Observations taken

MALTA. Lat. 35° 53′ N.

Month.	Mean Pressure.	Air Temperature.								Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.				Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.			Mean.	Per Cent.	Day.
January	30·165	56·0	50·4	57·2	44·8	14th	62·8	31st		·322	73·0	60·8	4th
February	30·134	59·0	53·0	59·9	46·8	23rd	65·6	3rd		·403	82·1	62·4	7th
March	29·952	61·0	53·4	60·4	48·2	23rd	65·2	1st		·371	72·0	53·0	12th
April	29·817	65·0	56·8	66·1	52·6	15th	73·2	23rd		·417	68·5	49·4	24th
May	29·962	67·0	60·4	69·1	49·2	2nd	76·0	15th		·505	68·0	58·0	1st
June	29·915	71·0	63·8	72·4	61·0	11th	77·4	30th		·524	68·2	53·6	10th
July	29·955	78·0	69·8	80·9	71·0	3rd	88·0	19th		·668	69·5	56·0	24th
August	29·940	79·0	73·7	81·8	69·2	1st	87·0	22nd		·772	76·2	55·4	31st
September	29·036	77·0	70·3	78·0	75·2	10th	84·0	26th		·606	67·4	57·2	28th
October	29·989	73·0	65·8	73·1	61·4	23rd	80·4	11th		·539	67·4	54·2	16th
November	30·054	64·0	58·5	64·4	53·0	29th	69·4	4th		·415	68·0	52·6	7th
December	29·990	60·0	54·9	60·7	56·0	24th	65·0	10th		·390	76·6	64·0	24th
Mean	29·910	67·5	60·9	68·6	57·3	—	74·5	—		·494	71·4	56·4	—

FORT NAPIER, NATAL. Lat. 29° 3′ S.

January*	29·918	70·0	62·5	84·2	56·8	3rd	99·2	5th	·576	71·4	57·0	14th
February†	29·930	71·0	62·1	84·4	56·8	26th	97·2	21st	·582	74·3	51·0	12th
March	29·958	68·0	58·6	81·3	51·2	22nd	98·5	15th	·531	77·5	58·0	26th
April	30·012	64·0	55·0	80·1	43·8	19th	94·8	16th	·438	71·5	47·6	11th
May	30·043	60·0	49·1	77·1	38·8	17th	87·2	10th	·334	66·6	43·0	6th
June	30·156	53·0	42·8	70·5	35·5	5th	82·0	27th	·240	59·5	40·0	22nd
July	30·190	51·0	40·1	72·3	30·5	12th	84·0	21st	·222	56·2	33·6	16th
August	30·180	59·0	48·8	78·5	42·0	2nd	94·0	24th	·294	56·2	38·0	21st
September	30·030	62·0	52·0	79·8	40·5	18th	98·5	20th	·231	38·0	25·0	3rd
October	29·997	65·0	54·7	77·7	45·5	17th	99·2	12th	·417	65·9	40·0	31st
November	29·928	67·0	57·7	78·5	52·8	16th	99·8	25th	·488	69·5	40·0	1st
December	29·963	71·0	59·6	83·4	51·0	9th	102·5	12th	·531	65·8	40·6	12th
Mean	30·025	63·5	53·6	79·0	45·4	—	94·7	—	·407	64·4	42·8	—

* 28 days only. † 18 days only.

SIERRA LEONE. Lat. 8° 29′ N.

January	29·878	82·5	83·1	96·2	78·0	1st	98·0	8th	·926	85·0	64·0	8th
February	29·860	84·8	73·7	94·7	69·0	5th	97·0	6th	·773	68·4	52·0	12th
March	29·733	82·2	77·4	95·8	74·0	7th	98·0	20th	·927	88·5	80·0	11th
April	29·881	84·1	75·8	92·9	75·0	10th	98·0	15th	·969	83·0	65·0	21st
May	29·880	81·7	75·2	95·4	70·0	17th	97·0	2nd	·944	90·5	80·0	15th
June	29·876	83·4	77·8	95·2	73·0	11th	97·0	11th	·968	89·0	80·0	7th
July	29·880	81·9	75·8	93·4	70·0	4th	97·0	1st	·923	91·5	80·0	7th
August	29·880	81·6	75·5	89·8	70·0	3rd	97·0	17th	·909	89·5	72·0	30th
September	29·877	81·0	80·4	90·0	71·0	19th	96·0	16th	·957	92·5	85·0	5th
October	29·881	80·9	82·9	91·9	76·0	3rd	96·0	1st	·928	92·0	85·0	3rd
November	29·877	81·0	78·8	90·8	75·0	14th	98·0	24th	·934	92·0	85·0	10th
December	29·885	81·0	82·4	91·4	76·0	17th	97·0	22nd	·943	92·0	85·0	3rd
Mean	29·865	82·2	78·2	93·1	73·1	—	97·2	—	·925	87·8	76·1	—

No. XVIII.—*continued.*

at Netley and Foreign Stations in the Year 1884.

Long. 14° 30′ E. Height of Barometer Cistern above Sea, 70 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
5·0	1·87	0·96	3rd	11	—	—	—	—	9·0	8·0	—	1·0	6·0	1·0	4·0	—	4·0	1·0	14·0	—
4·0	0·64	0·24	19th	5	—	—	—	—	10·0	6·0	—	1·0	7·0	1·0	5·0	1·0	8·0	1·0	5·0	—
5·5	1·39	0·23	8th	8	—	—	—	—	5·0	10·0	—	—	8·0	3·0	7·0	—	5·0	1·0	7·0	—
4·5	0·45	0·25	28th	3	—	—	—	—	11·0	10·0	—	—	2·0	1·0	6·0	1·0	7·0	4·0	9·0	—
3·0	0·48	0·17	9th	6	—	—	—	—	22·0	6·0	—	5·0	9·0	3·0	4·0	1·0	1·0	—	8·0	—
1·9	0·16	0·07	29th	4	—	—	—	—	22·0	—	—	3·0	7·0	1·0	2·0	—	1·0	1·0	15·0	—
0·9	—	—	—	—	—	—	—	—	20·0	—	—	1·0	10·0	1·0	4·0	—	1·0	1·0	13·0	—
1·9	0·20	0·20	19th	1	—	—	—	—	24·0	1·0	—	3·0	10·0	1·0	2·0	1·0	3·0	—	11·0	—
3·0	0·24	0·24	13th	1	—	—	—	—	18·0	10·0	—	1·0	7·0	1·0	9·0	1·0	2·0	—	9·0	—
6·0	1·42	0·78	6th	4	—	—	—	—	16·0	7·0	—	1·0	8·0	1·0	6·0	—	2·0	1·0	12·0	—
6·0	5·65	2·49	20th	14	—	—	—	—	6·0	10·0	—	1·0	12·0	3·0	5·0	—	1·0	—	8·0	—
5·0	3·58	0·93	17th	14	—	—	—	—	6·0	9·0	—	—	10·0	1·0	5·0	—	7·0	1·0	7·0	—
3·9	1·34	0·54	—	6·0	—	—	—	—	14·8	6·4	—	1·4	8·0	1·5	5·0	0·4	3·5	0·9	9·8	—

Long. 30° 2′ E. Height of Barometer Cistern above Sea, 2,294 feet.

7·0	6·36	1·34	27th	17	—	—	—	—	5·0	17·0	—	1·0	10·0	10·5	6·0	—	—	—	0·5	—
6·5	5·50	1·94	26th	9	—	—	—	—	5·0	9·5	—	—	8·0	3·0	4·5	0·5	—	0·5	1·5	—
5·5	5·89	1·75	2nd	15	—	—	—	—	11·5	15·5	—	1·5	18·5	3·0	3·5	2·5	0·5	—	1·5	—
3·5	0·80	0·24	2nd	5	—	—	—	—	15·5	7·0	—	—	12·5	5·5	5·0	4·5	1·5	—	1·0	—
3·5	0·53	0·20	16th	5	—	—	—	—	20·0	7·0	—	0·5	3·5	6·5	4·5	9·5	5·0	—	1·5	—
3·0	0·94	0·64	19th	2	—	—	—	—	20·0	5·5	—	3·0	4·0	2·0	4·5	10·0	3·0	1·0	2·5	—
1·4	0·03	0·03	27th	1	—	—	—	—	27·5	1·5	—	3·5	4·0	8·0	4·0	7·0	2·5	1·5	0·5	—
2·0	0·10	0·07	5th	2	—	—	—	—	21·5	4·5	—	1·5	5·0	7·5	6·5	7·5	2·0	0·5	0·5	—
5·0	1·02	0·41	22nd	7	—	—	—	—	19·0	7·5	—	2·5	7·5	5·5	5·5	5·5	0·5	—	3·0	—
5·5	8·81	2·78	18th	17	—	—	—	—	10·0	14·0	—	1·5	7·0	4·5	10·0	6·5	0·5	—	1·0	—
6·5	6·06	1·45	3rd	17	—	—	—	—	8·0	16·0	—	2·0	4·5	7·5	10·5	3·0	—	0·5	2·0	—
5·3	3·15	0·56	7th	17	—	—	—	—	11·0	12·5	—	3·5	6·5	9·5	7·5	4·0	—	—	—	—
4·5	3·27	0·95	—	9·5	—	—	—	—	14·5	9·8	—	1·7	7·6	6·1	6·0	5·0	1·3	0·3	1·3	—

Long. 13° 9′ W. Height of Barometer Cistern above Sea, 224 feet.

5·2	—	—	—	—	—	—	—	—	31	—	—	5·0	1·0	4·0	1·0	12·0	1·0	3·0	2·0	2·0
3·0	0·62	0·62	25th	1	—	—	—	—	28	—	—	6·0	1·0	2·0	2·0	10·0	4·0	2·0	2·0	—
5·0	0·37	0·37	22nd	1	—	—	—	—	30	—	—	8·0	1·0	1·0	1·0	14·0	2·0	3·0	1·0	—
3·7	4·04	2·00	12th	7	—	—	5	—	23	—	—	8·0	1·0	2·0	—	11·0	1·0	6·0	1·0	—
2·9	12·91	3·50	27th	17	—	—	9	—	—	—	—	5·0	—	6·0	—	10·0	4·0	4·0	2·0	—
3·2	28·67	4·20	18th	25	—	—	4	—	1	—	—	7·0	—	2·0	1·0	13·0	4·0	2·0	—	1·0
3·0	27·63	3·05	17th	28	—	—	—	—	3	—	—	9·0	1·0	4·0	—	11·0	1·0	4·0	—	1·0
3·0	31·43	4·40	24th	27	—	—	—	—	4	—	—	8·0	—	2·0	1·0	12·0	2·0	3·0	1·0	2·0
4·1	20·41	3·95	2nd	27	—	—	9	—	6	—	—	—	—	1·0	1·0	4·0	2·0	19·0	1·0	2·0
4·0	11·32	2·10	16th	17	—	—	8	—	14	—	—	1·0	—	2·0	1·0	13·0	2·0	11·0	—	1·0
3·0	8·59	2·40	8th	9	—	—	5	—	16	—	—	1·0	1·0	6·0	—	12·0	3·0	7·0	—	—
2·2	0·52	0·45	1st	4	—	—	1	—	26	—	—	5·0	—	5·0	1·0	14·0	1·0	5·0	—	—
3·5	12·21	2·25	—	13·6	—	—	3·4	—	15·1	—	—	5·2	0·5	3·1	0·7	11·3	2·2	5·8	0·8	0·7

Appendix

Annual Abstract of Meteorological Observations taken

BARBADOS. Lat. 13° 7′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
			Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
		Mean, 9 a.m.	Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	30·055	81·0	76·8	84·5	73·0	10th	86·0	7th	·667	63·2	52·8	31st
February -	30·032	80·0	73·5	85·4	65·0	20th	89·0	26th	·670	63·4	54·0	25th
March - -	30·002	79·0	74·3	84·4	70·0	27th	94·5	11th	·703	68·2	51·0	23rd
April - -	29·985	82·0	76·5	85·0	73·0	14th	89·0	25th	·738	68·4	60·0	4th
May - -	29·978	82·0	77·8	87·1	74·5	22nd	89·0	17th	·686	62·2	60·0	31st
June - -	29·979	83·0	78·3	87·0	75·0	15th	90·0	8th	·777	69·2	60·0	13th
July - -	29·993	82·0	79·7	87·7	76·0	30th	91·0	31st	·785	70·8	52·0	19th
August - -	29·989	84·0	78·6	87·9	76·0	9th	91·0	30th	·813	70·4	58·0	14th
September -	29·989	83·0	75·1	85·6	72·0	1st	89·0	21st	·797	68·8	57·0	24th
October - -	29·956	82·0	77·1	85·9	71·0	27th	88·0	16th	·806	73·2	00·0	30th
November -	30·011	85·0	78·6	89·6	74·0	10th	93·0	7th	·801	66·0	52·0	2nd
December -	30·079	80·0	76·2	84·3	72·0	24th	86·0	9th	·708	68·2	57·0	9th
Mean -	30·004	81·9	76·8	86·1	72·6	—	89·6	—	·746	67·8	56·1	—

UPPER-PARK CAMP, JAMAICA. Lat. 17° 59′ N.

Month.	Mean Pressure.	Mean, 9 a.m.	Min.	Max.	Abs. Min. Temp.	Abs. Min. Day.	Abs. Max. Temp.	Abs. Max. Day.	Tension of Vapour.	Per Cent. Mean.	Min. Per Cent.	Min. Day.
January - -	29·904	79·3	57·7	92·4	53·0	29th	98·0	22nd	·771	70·0	57·1	7th
February - -	29·965	79·1	57·1	92·1	54·0	5th	104·0	18th	·764	71·6	54·1	4th
March - -	29·967	78·4	56·9	88·3	54·0	20th	95·0	30th	·727	68·4	56·1	19th
April - -	29·916	80·8	57·6	90·3	54·0	6th	97·0	12th	·799	67·6	59·7	1st
May - -	29·902	82·3	59·4	90·4	51·0	31st	95·0	13th	·852	70·1	61·1	18th
June - -	29·889	83·3	60·9	Instruments broken.	54·0	1st	Instruments broken.	Instruments broken.	·868	70·8	61·1	27th
July - -	29·932	82·0	61·3		59·0	2nd			·777	57·4	49·0	31st
August - -	30·029	84·0	60·4		58·0	28th			·820	64·4	40·4	2nd
September -	29·972	84·0	70·4		66·0	7th			·809	62·1	45·3	21st
October - -	29·977	82·0	71·0		69·0	8th			·844	73·2	61·1	31st
November -	30·023	82·0	69·8		68·0	17th			·821	69·2	54·4	18th
December -	30·074	82·0	68·7		65·0	3rd			·791	69·2	57·1	15th
Mean -	29·961	81·6	62·6	90·7	58·7	—	97·8	—	·804	67·8	54·7	—

NEWCASTLE, JAMAICA. Lat. 18° 6′ N.

Month.	Mean Pressure.	Mean, 9 a.m.	Min.	Max.	Abs. Min. Temp.	Abs. Min. Day.	Abs. Max. Temp.	Abs. Max. Day.	Tension of Vapour.	Per Cent. Mean.	Min. Per Cent.	Min. Day.
January - -	30·283	62·0	54·5	77·1	52·4	18th	82·4	13th	·513	69·0	54·1	4th
February - -	30·256	60·0	53·1	76·7	49·0	23rd	80·8	27th	·472	67·5	58·8	19th
March - -	30·257	62·0	53·7	76·6	52·0	20th	80·8	30th	·524	71·1	60·0	31st
April - -	30·225	64·0	Instruments broken.									
May - -	30·219	66·0										
June - -	30·212	68·0										
July - -	30·235	68·0										
August - -	30·218	68·0										
September -	30·222	68·0										
October - -	30·168	66·0										
November -	30·181	66·0										
December -	30·213	63·0										
Mean -	30·224	65·0	53·7	76·8	51·1	—	81·3	—	·503	69·2	57·6	—

No. XVIII.—*continued.*

at Netley and Foreign Stations in the Year 1884.

Long. 59° 40′ W. Height of Barometer Cistern above Sea, 30 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
3·3	0·99	0·20	9th	10	—	—	—	—	29·0	2·0	—	—	31·0	—	—	—	—	—	—	—
3·9	1·08	0·34	8th	12	—	—	—	—	18·5	2·5	—	—	16·0	13·0	—	—	—	—	—	—
3·4	1·89	0·44	28th	18	—	—	—	—	22·0	9·0	—	—	20·0	10·5	0·5	—	—	—	—	—
2·6	1·21	0·61	15th	4	—	—	—	—	24·0	6·0	—	—	18·0	12·0	—	—	—	—	—	—
3·6	2·48	0·47	12th	19	—	—	—	—	17·5	2·5	—	—	11·5	15·5	4·0	—	—	—	—	—
3·0	2·38	0·73	15th	15	—	—	—	—	21·0	2·0	—	—	5·0	8·5	16·5	—	—	—	—	—
2·6	2·00	0·62	6th	14	—	—	—	—	26·5	4·5	—	—	9·5	21·5	—	—	—	—	—	—
2·2	2·99	0·98	24th	20	—	—	2	—	10·0	12·0	—	—	15·0	12·0	4·0	—	—	—	—	—
3·6	2·94	0·64	11th	20	—	—	—	—	17·0	4·0	—	—	8·0	5·0	17·0	—	—	—	—	—
4·4	7·97	2·37	23rd	22	—	—	2	—	5·0	19·0	—	—	26·0	—	5·0	—	—	—	—	—
3·9	6·34	1·79	9th	19	—	—	—	—	9·0	12·0	2	—	15·0	9·5	5·5	—	—	—	—	—
3·4	5·40	1·74	30th	15	—	—	—	—	26·0	3·0	—	—	28·0	3·0	—	—	—	—	—	—
3·3	3·14	0·91	—	15·6	—	—	0·3	—	18·8	6·5	0·1	—	17·0	9·2	4·3	—	—	—	—	—

Long. 76° 56′ W. Height of Barometer Cistern above Sea, 245 feet.

3·5	1·03	0·47	10th	4	—	—	—	—	18·0	5·0	—	6·5	4·0	0·5	7·0	3·5	2·5	1·5	0·5	5·0
4·1	0·68	0·60	27th	4	—	—	—	—	15·5	6·0	—	2·5	1·5	—	11·0	4·0	2·5	1·5	1·5	4·5
3·5	1·68	1·20	9th	4	—	—	—	—	21·5	6·0	—	2·5	0·5	1·0	12·5	3·5	3·5	5·0	1·0	1·5
3·1	0·26	0·25	26th	2	—	—	3	—	23·0	2·5	—	—	1·0	—	12·5	8·5	5·5	1·0	0·5	1·0
3·5	2·52	1·10	30th	4	—	—	4	—	23·0	3·0	—	1·5	—	0·5	16·5	3·0	6·0	0·5	1·5	1·5
4·8	2·68	0·60	11th	7	—	—	5	—	19·0	9·5	—	0·5	2·0	—	16·0	2·5	1·5	1·0	2·5	4·0
3·0	0·50	0·30	26th	2	—	—	2	—	20·0	1·5	—	0·5	1·5	—	20·5	3·0	2·5	—	2·5	0·5
3·6	5·27	1·30	7th	12	—	—	1	—	22·0	4·5	—	0·5	1·0	—	18·0	2·0	7·0	—	2·5	—
3·0	3·77	1·50	28th	9	—	—	4	—	24·0	2·0	—	1·0	0·5	—	20·5	2·0	3·0	2·0	1·0	—
3·0	11·57	6·12	8th	16	—	—	1	—	25·5	2·0	—	0·5	4·0	—	19·5	3·0	1·0	0·5	2·0	0·5
3·0	2·03	0·70	3rd	10	—	—	—	—	26·0	3·5	—	1·5	5·5	0·5	17·5	1·0	1·5	0·5	1·5	0·5
2·0	0·80	0·70	20th	2	—	—	—	—	30·0	—	—	0·5	3·0	—	24·5	0·5	0·5	0·5	1·5	—
3·3	2·73	1·23	—	6·3	—	—	1·6	—	22·8	3·8	—	1·5	2·0	0·2	16·3	3·0	3·1	1·2	1·5	1·6

Long. 76° 42′ W. Height of Barometer Cistern above Sea, 3,800 feet.

5·0	8·78	3·48	10th	19	—	—	—	—	12·5	9·0	—	3·5	15·0	8·0	0·5	—	1·0	0·5	—	2·5
5·1	4·65	1·98	8th	11	—	—	—	—	9·5	6·5	—	3·5	15·5	2·5	2·0	—	—	0·5	1·0	4·0
4·9	1·75	0·56	5th	9	—	—	—	—	10·0	5·5	—	2·0	15·5	5·5	—	—	0·5	—	1·0	6·5
4·5	1·62	0·68	26th	5	—	—	—	—	10·0	4·0	—	0·5	21·5	4·5	—	—	—	—	—	3·5
6·5	11·86	3·14	24th	14	—	—	2	—	3·5	12·0	—	1·5	6·5	14·5	2·5	—	—	—	—	6·0
5·5	5·41	1·32	3rd	18	—	—	5	—	6·5	7·0	—	1·0	19·0	4·5	0·5	—	—	—	—	5·0
4·1	0·33	0·10	4th	5	—	—	4	—	16·0	3·0	—	0·5	16·0	7·0	0·5	—	—	—	—	7·0
4·1	1·82	0·39	21st	12	—	—	31	—	18·0	7·0	—	—	15·0	2·0	—	—	—	—	—	14·0
4·1	5·69	1·15	8th	11	—	—	5	—	17·5	8·0	—	2·0	10·0	4·5	—	—	—	—	1·0	12·5
5·5	18·26	3·80	19th	24	—	—	4	—	11·0	13·5	—	11·0	12·5	—	—	—	—	0·5	3·0	4·0
4·5	10·11	4·40	12th	14	—	—	6	—	15·5	9·0	—	10·5	9·0	0·5	—	—	—	2·0	4·0	4·0
4·0	1·95	0.80	24th	9	—	—	—	—	15·5	7·0	—	9·5	10·0	4·0	—	—	—	1·0	3·0	3·5
4·8	6·02	1·81	—	12·6	—	—	4·7	—	12·1	7·6	—	3·8	13·8	4·8	0·5	—	0·1	0·4	1·0	6·0

Appendix

Annual Abstract of Meteorological Observations taken

Nassau, Bahamas. Lat. 25° 5′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January	30·186	72·0	64·5	Out of order.	57·5	21st	Out of order.	—	·591	75·5	60·8	21st
February	30·137	74·0	65·5		55·0	26th		—	·611	72·0	53·8	26th
March	30·130	74·0	67·4		61·0	1st		—	·612	68·4	51·8	4th
April	30·038	76·0	66·7		58·0	10th		—	·589	62·5	47·5	28th
May	30·030	79·0	69·9		65·2	10th		—	·735	71·0	56·0	13th
June	30·035	79·0	71·9		67·5	12th		—	·793	76·0	65·5	5th
July	30·059	84·0	75·3		72·0	7th		—	·854	67·0	58·0	13th
August	30·040	83·0	74·7		71·0	26th		—	·838	68·9	61·3	12th
September	30·038	82·0	74·9		70·0	7th		—	·845	74·8	64·8	21st
October	29·951	79·0	72·0	83·2	66·2	17th	88·0	1st	·746	74·2	56·0	26th
November	30·032	78·0	70·9	82·5	67·8	15th	87·2	15th	·753	77·4	58·8	17th
December	30·106	75·0	67·8	80·4	63·2	15th	85·5	22nd	·685	77·5	64·2	20th
Mean	30·066	78·0	70·1	82·0	64·5	—	86·9	—	·721	72·1	58·2	—

Bermuda. Lat. 32° 17′ N.

January	30·184	63·0	Out of order.	60·6	Out of order.	—	74·6	20th	·489	81·0	67·3	18th
February	30·188	65·0		71·3		—	75·8	10th	·485	76·5	61·0	15th
March	30·016	64·0		71·8		—	77·2	9th	·475	79·0	59·0	17th
April	29·874	65·0		71·2		—	75·2	6th	·511	80·0	57·6	30th
May	30·070	71·0		78·0		—	83·4	26th	·701	83·0	66·2	22nd
June	30·080	76·0		82·9		—	86·5	23rd	·834	84·5	71·0	20th
July	30·079	76·0		85·1		—	87·8	10th	·819	81·6	73·4	20th
August	30·123	79·0		87·0		—	89·6	11th	·923	86·2	59·2	7th
September	30·066	81·0		86·8		—	90·2	18th	·760	70·0	56·4	19th
October	30·003	75·0		81·5		—	85·4	18th	·769	85·5	68·2	24th
November	30·091	70·0		74·9		—	79·5	12th	·592	84·5	75·0	28th
December	30·153	68·0		71·4		—	77·4	27th	·570	85·0	66·4	27th
Mean	30·077	71·0	—	77·6	—	—	81·9	—	·660	81·4	65·1	—

Singapore. Lat. 1° 16′ N.

January	29·041	78·0	66·5	87·0	65·0	29th	94·6	10th	·860	82·5	74·4	6th
February	29·018	79·0	67·3	93·2	65·6	25th	97·6	24th	·885	79·3	71·2	23rd
March	28·905	80·0	68·0	93·2	65·0	4th	96·8	31st	·901	81·2	67·4	8th
April	29·006	81·0	65·6	90·0	65·2	26th	97·0	5th	·901	76·8	65·0	22nd
May	28·960	81·0	69·2	93·7	62·0	20th	105·0	1st	·969	82·3	72·0	14th
June	28·990	80·0	70·0	90·9	67·8	18th	95·6	15th	·950	85·0	74·6	1st
July	28·981	80·0	70·1	91·6	64·2	2nd	94·6	14th	·916	84·0	72·8	3rd
August	29·009	80·0	69·2	92·9	62·2	24th	97·0	10th	·916	80·0	61·4	13th
September	29·002	81·0	68·2	92·2	61·8	24th	96·0	1st	·901	81·2	67·2	29th
October	28·980	80·0	68·2	92·3	60·8	25th	98·6	23rd	·929	80·6	69·8	31st
November	28·970	80·0	68·9	93·7	67·0	26th	101·2	5th	·935	81·6	69·8	1st
December	29·001	78·0	66·7	91·3	60·8	21st	99·0	4th	·855	81·0	66·4	30th
Mean	28·906	79·8	68·1	91·8	63·9	—	97·7	—	·910	81·3	69·3	—

No. XVIII.—*continued.*

at Netley and Foreign Stations in the Year 1884.

Long. 77° 21′ W. Height of Barometer Cistern above Sea, 44 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
5·8	1·95	0·65	5th	7	—	—	1	—	6·0	12·0	—	3·5	11·0	4·5	9·5	0·5	1·5	—	0·5	—
4·8	2·03	1·23	24th	9	—	—	1	—	7·0	5·0	—	1·0	4·0	7·5	6·0	4·0	4·0	0·5	2·0	—
5·1	0·91	0·33	1st	8	—	—	—	—	3·0	4·5	—	4·0	4·5	3·0	12·0	4·0	0·5	1·0	2·0	—
4·4	0·77	0·77	23rd	1	—	—	—	—	4·5	2·5	—	4·0	6·5	1·0	4·0	4·5	4·5	0·5	5·0	—
6·0	5·68	1·21	28th	14	—	—	3	—	1·5	9·5	—	2·0	7·5	5·0	5·0	4·5	5·0	—	2·0	—
7·5	8·99	3·30	14th	15	—	—	2	—	0·5	16·0	—	0·5	6·0	11·5	11·5	0·5	—	—	—	1·0
5·7	2·14	0·49	22nd	11	—	—	3	—	1·0	7·5	—	2·0	1·5	4·0	13·0	4·5	5·0	—	1·0	—
5·8	8·52	1·69	7th	19	—	—	4	—	1·5	7·5	—	—	0·5	4·0	20·5	2·5	3·5	—	—	—
7·0	5·27	1·10	7th	15	—	—	1	—	1·5	16·0	—	1·5	2·5	7·5	9·5	1·0	5·5	0·5	2·0	—
6·0	2·36	0·79	13th	15	—	—	—	—	1·5	7·5	1	1·5	13·0	11·0	2·5	—	1·0	—	2·0	—
6·7	4·23	3·05	15th	12	—	—	1	—	2·0	12·5	—	—	9·0	9·5	7·0	0·5	2·0	—	2·0	—
5·0	1·24	0·49	2nd	9	—	—	—	—	3·0	5·0	—	1·0	8·0	9·0	10·0	1·5	—	—	1·5	—
5·8	3·67	1·26	—	11·2	—	—	1·3	—	2·7	8·8	·08	1·75	6·1	6·4	9·2	2·3	2·7	0·2	1·6	·08

Long. 64° 47′ W. Height of Barometer Cistern above Sea, 151 feet.

6·1	2·87	0·48	29th	13	—	—	1	—	5·0	12·5	—	5·5	4·0	2·0	2·0	3·5	6·5	6·0	1·5	—
5·3	3·61	1·24	16th	11	—	—	1	—	8·5	9·5	—	2·0	5·0	6·0	4·0	—	8·0	2·0	2·0	—
6·3	3·20	0·70	1st	10	—	1	3	—	13·0	7·0	—	5·0	2·0	—	3·0	2·0	13·0	2·0	4·0	—
7·1	3·91	0·56	3rd	14	—	—	2	—	11·0	2·0	—	2·0	2·0	—	2·0	3·0	7·0	9·0	5·0	—
6·4	3·25	1·58	16th	6	—	—	1	—	28·0	—	—	5·0	3·0	2·0	3·0	3·0	7·0	5·0	3·0	—
5·5	2·38	1·10	3rd	5	—	—	1	—	26·0	—	—	—	2·0	—	7·0	3·0	10·0	5·0	3·0	—
6·9	4·12	1·42	21st	5	—	—	—	—	25·0	2·0	—	—	4·0	—	12·0	3·0	8·0	2·0	2·0	—
5·5	5·90	2·00	18th	13	—	—	5	—	13·0	3·0	—	—	1·0	1·0	10·0	3·0	12·0	3·0	1·0	—
6·2	1·50	1·00	12th	2	—	—	—	—	27·0	1·0	—	3·0	3·0	—	10·0	5·0	9·0	—	—	—
6·1	1·44	1·20	25th	3	—	—	—	—	20·0	1·0	—	3·0	11·0	3·0	6·0	2·0	3·0	1·0	2·0	—
5·5	8·77	2·48	6th	14	—	—	1	—	19·0	2·0	6	—	3·0	3·0	13·0	—	10·0	—	1·0	—
5·5	5·32	3·90	16th	9	—	—	1	—	22·0	1·0	—	4·0	5·0	3·0	3·0	2·0	11·0	1·0	2·0	—
6·0	3·85	1·47	—	8·7	—	·08	1·3	—	17·3	3·4	0·5	2·5	3·7	1·7	6·2	2·5	8·7	3·0	2·2	—

Long. 105° 31′ E. Height of Barometer Cistern above Sea, 110 feet.

6·5	13·69	1·72	9th	22	—	—	6	—	2·0	7·0	2	7·5	5·5	1·0	0·5	—	—	2·0	14·5	—
4·5	4·12	1·10	14th	9	—	—	3	—	6·0	14·0	—	2·0	12·0	10·5	—	—	1·0	—	3·5	—
5·0	9·08	2·72	15th	10	—	—	8	—	9·0	12·0	1	1·5	11·5	7·5	2·0	1·5	0·5	4·0	2·5	—
3·6	3·59	1·14	2nd	6	—	—	5	—	16·0	3·0	—	—	6·5	4·0	7·0	0·5	2·5	0·5	9·0	—
4·1	4·39	1·20	19th	11	—	—	15	—	14·0	4·0	—	1·5	7·0	4·5	10·0	1·5	1·0	—	5·5	—
4·9	5·71	0·91	18th	15	—	—	9	—	16·0	7·0	—	2·5	13·0	4·0	8·0	—	0·5	—	2·0	—
4·4	5·65	1·67	1st	12	—	—	8	—	19·0	6·0	2	1·0	13·0	1·5	9·5	—	0·5	—	5·5	—
4·7	4·05	0·77	23rd	13	—	—	6	—	14·0	3·0	2	—	—	—	7·5	2·0	18·5	1·5	1·5	—
4·1	6·47	1·80	3rd	11	—	—	9	—	14·0	2·0	1	—	—	—	1·0	1·0	17·5	5·5	5·0	—
5·0	5·85	1·18	10th	12	—	—	4	—	6·0	4·0	—	1·0	—	—	—	0·5	11·5	8·5	9·5	—
4·8	3·41	1·06	24th	10	—	—	6	—	10·0	5·0	—	2·0	3·5	—	0·5	—	5·0	5·0	14·0	—
5·4	11·13	4·42	7th	10	—	—	—	—	3·0	7·0	1	5·0	17·0	—	—	0·5	1·0	0·5	7·0	—
4·7	6·43	1·64	—	11·7	—	—	6·6	—	10·7	6·2	0·7	2·0	7·4	2·7	3·8	0·6	5·0	2·3	6·6	—

Appendix

Annual Abstract of Meteorological Observations taken

HONG KONG, CHINA. Lat. 22° 16′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of.		Abs. Min.		Abs. Max.			Per Cent.	Minimum.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	30·200	65·0	57·1	66·8	45·5	9th	74·0	26th	·451	80·0	59·0	9th
February -	30·182	61·0	52·4	61·9	41·0	7th	70·0	28th	·368	77·4	51·0	24th
March - -	30·027	65·0	58·0	68·0	53·5	9th	79·0	27th	·490	85·0	66·0	9th
April - -	29·958	69·0	62·6	73·3	53·5	2nd	85·0	22nd	·587	83·5	63·5	23rd
May - -	29·836	75·0	69·6	80·2	61·5	13th	86·0	8th	·739	82·0	62·5	31st
June - -	29·776	79·0	74·1	84·9	70·0	1st	90·0	27th	·837	80·6	67·0	1st
July - -	29·697	81·0	76·1	85·4	74·0	3rd	92·0	20th	·891	76·8	58·0	12th
August - -	29·738	81·0	75·6	87·5	73·0	24th	93·0	9th	·878	78·4	61·0	22nd
September -	29·812	80·0	74·0	86·3	71·0	23rd	90·0	5th	·813	73·6	54·0	22nd
October - -	30·033	77·0	70·2	81·2	64·0	22nd	88·0	6th	·673	69·0	45·0	21st
November -	30·101	68·0	59·7	72·9	48·0	2nd	83·0	2nd	·483	69·5	48·0	22nd
December -	30·220	61·0	51·6	64·7	45·0	20th	71·0	3rd	·334	64·0	40·0	20th
Mean -	29·965	71·8	65·1	76·1	58·3	—	83·3	—	·628	76·7	56·2	—

ABBASIEH, EGYPT. Lat. unknown

January - -	30·047	50·9	42·6	59·0	35·1	22nd	67·1	13th	·284	73·0	—	—
February -	29·999	55·0	46·2	62·2	38·1	3rd	67·4	29th	·292	70·0	—	—
March - -	29·900	62·0	51·4	71·1	43·7	4th	87·8	28th	·299	59·0	—	—
April - -	29·811	75·4	59·7	71·1	48·5	4th	102·7	26th	·300	43·0	—	—
May - -	29·839	76·8	62·4	85·6	51·8	6th	104·5	30th	·377	48·0	—	—
June - -	29·833	86·3	70·5	97·3	62·6	4th	112·6	11th	·412	39·0	—	—
July - -	29·751	82·2	70·3	91·6	64·7	3rd	95·9	10th	·513	51·0	—	—
August - -	29·762	81·8	70·1	91·7	61·7	29th	100·7	7th	·542	53·0	—	—
September -	29·871	75·7	64·7	83·8	60·8	24th	89·9	7th	·473	57·0	—	—
October - -	29·929	72·3	62·6	81·3	56·8	22nd	97·5	16th	·451	59·0	—	—
November -	29·997	64·2	55·6	71·6	50·0	30th	79·7	24th	·363	63·0	—	—
December -	29·999	56·3	50·7	65·3	42·4	24th	72·8	6th	·334	71·0	—	—
Mean -	29·895	69·9	58·9	77·6	51·3	—	89·9	—	·386	57·1	—	—

No. XVIII.—*continued.*

at Netley and Foreign Stations in the Year 1884.

Long. 114° 9′ E. Height of Barometer Cistern above Sea, 18 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	NW.	Calm.
5·0	—	—	—	—	—	—	—	—	9·0	8·0	—	0·5	12·5	14·0	—	—	—	0·5	0·5	3·0
6·0	3·54	1·30	3rd	11	—	—	—	—	9·5	11·5	—	2·5	16·5	3·5	—	—	—	2·5	2·5	1·5
8·5	5·67	1·85	6th	13	—	—	—	—	1·5	23·5	—	0·5	21·0	4·5	1·0	0·5	0·5	1·0	1·0	1·0
8·0	5·13	0·95	12th	16	—	—	1·0	—	3·5	17·5	—	—	18·0	5·0	1·0	—	1·0	1·0	0·5	3·5
8·0	9·93	3·44	1st	17	—	—	1·0	—	1·5	17·5	—	—	13·5	5·5	—	1·0	2·0	1·5	1·0	6·5
4·4	12·55	1·80	20th	17	—	—	—	—	14·0	3·5	—	—	6·5	9·0	5·0	1·5	3·0	3·0	1·5	0·5
2·7	14·93	3·90	20th	21	—	—	—	—	20·0	0·5	—	—	3·0	9·0	3·0	0·5	3·0	7·5	2·0	3·0
2·8	10·65	2·80	15th	15	—	—	4·0	—	22·0	1·0	—	—	2·0	3·0	2·0	1·0	5·0	4·5	7·0	6·5
4·3	16·21	11·40	10th	11	—	—	—	—	22·0	3·0	1	1·0	7·0	6·0	1·0	—	1·0	4·0	4·0	6·0
3·2	4·18	2·10	1st	10	—	—	—	—	22·0	2·0	—	1·0	12·0	10·0	3·0	1·0	—	—	2·0	2·0
2·7	1·58	0·62	2nd	7	—	—	—	—	20·0	1·0	—	4·0	10·0	9·0	—	—	—	1·0	2·0	4·0
2·3	—	—	—	—	—	—	—	—	28·0	—	—	2·0	12 0	7·0	—	—	—	1·0	3·0	6·0
4·8	7·03	2·51	—	11·5	—	—	0·5	—	14·4	7·4	·08	0·9	11·1	7·1	1·3	0·5	1·3	2·1	2·3	3·6

Long. unknown. Height of Barometer Cistern above Sea, unknown.*

4·4	0·37	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4·8	0·25	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3·4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·4	0·08	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3·0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0·9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1·6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4·0	1·65	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2·9	0·19	—	—	0·9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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* Corrections for Barometer are taken as at sea level.

Summary of Results of Meteorological Observations taken

Stations, with their Height above the sea.		Air Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.			Mean amount of Cloud.
			Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.		
				Min.	Max.	Temp.	Date.	Temp.	Date.		Mean.	Per Cent.	Date.	
Mediterranean:	ft.													
Gibraltar - -	53	30·069	65·1	54·5	65·6	45·0	21 Feb.	94·2	15 Aug.	·527	87·5	53·1	17 Aug.	4·7
Scutari - - -	60	29·985	62·3	48·3	65·7	24·0	21 Jan.	94·2	7 Aug.	·359	73·1	37·4	14 May	5·6
Cyprus:														
Nicosia[a] - -	592	—	—	47·1	73·5	28·4	14 Feb.	101·0	31 May	·353	65·3	28·1	5 June.	4·0
Polymedia[b] - -	460	29·977	62·0	51·1	72·7	29·0	30 Jan.	101·7	17 Oct.	·396	66·7	29·7	16 Oct.	4·4
Troodos[c] - -	5,700	29·899	65·5	53·0	75·0	37·0	30 Sept.	93·0	3 Aug.	·328	53·6	26·7	19 July	2·2
Malta - - -	70	29·910	67·5	60·9	68·6	44·8	14 Jan.	88·0	19 July	·404	71·4	49·4	24 Apr.	3·9
Natal, "Fort Napier"	2,294	30·025	63·5	53·6	79·0	30·5	12 July	102·5	12 Dec.	·407	64·4	25·0	3 Sept.	4·5
Sierra Leone -	224	29·865	82·2	78·2	93·1	69·0	5 Feb.	98·0	8 Jan.	·925	87·8	52·0	12 Feb.	3·5
American & West Indies:														
Barbados - -	30	30·004	81·9	76·8	86·1	65·0	20 Feb.	94·5	11 Mar.	·746	67·8	51·0	23 Mar.	3·3
Newcastle, Jamaica -	3,800	30·224	65·0	53·7	76·8	49·0	23 Feb.	82·4	13 Jan.	·503	69·2	54·1	4 Jan.	4·8
Upper Park Camp „ -	245	29·961	81·6	62·6	90·7	51·0	31 May	104·0	18 Feb.	·804	67·8	40·4	2 Aug.	3·3
Nassau, Bahamas -	44	30·066	78·0	70·1	82·0	55·0	26 Feb.	88·0	1 Oct.	·721	72·1	47·5	28 Apr.	5·8
Bermuda - -	151	30·077	71·0	—	77·6	—	—	90·2	18 Sept.	·660	81·4	56·4	19 Sept.	6·0
Singapore - -	110	28·996	79·8	68·1	91·8	60·8	25 Oct.	105·0	1 May	·910	81·3	65·0	22 Apr.	4·7
Hong Kong - -	18	29·965	71·8	65·1	76·1	41·0	7 Feb.	92·0	20 July	·628	76·7	40·0	20 Dec.	4·8
Egypt, Abbasieh	unknown	29·895	69·9	58·9	77·6	35·1	22 Jan.	112·6	11 June	·386	57·1	—	—	2·9

[a] For 6 months only [b] For 8 months only. [c] For 4 months only.

at Foreign Stations in the Year 1884.

Rainfall.			Weather.								Wind.										
			Number of days of								No. of Observations under each Point.										
Total.	Max.	Date.	Rain.	Snow.	Hail.	Thunder-storm.	Fog.	Clear sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	NW.	Calm.	Latitude.	Longitude.
																				° '	° '
40·71	4·37	20 Nov.	7·8	—	—	—	1·4	12·6	8·7	—	0·8	6·0	9·3	0·4	—	2·4	6·7	5·4	0·1	36 6 N.	5 20 W.
28·10	1·95	29 Sept.	11·7	1·0	0·6	1·4	0·6	10·5	12·8	—	5·0	8·8	3·4	0·7	4·2	4·4	1·0	0·4	2·3	41 0 N.	29 3 E.
13·55	2·10	30 Jan.	6·0	—	0·16	1·5	—	13·1	7·0	—	3·3	2·1	4·6	2·8	1·6	1·6	6·8	4·8	—	35 10 N.	33 21 E.
21·67	2·43	30 Jan.	7·7	0·1	0·5	2·0	0·1	12·5	5·6	—	3·3	3·5	3·9	4·2	1·5	5·5	3·0	4·2	0·2	34 40 N.	33 0 E.
0·95	0·42	7 Sept.	1·0	—	0·2	—	—	20·0	2·0	—	8·5	5·0	1·7	0·2	1·0	1·0	5·0	4·5	—	34 57 N.	32 55 E.
16·08	2·49	20 Nov.	6·0	—	—	—	—	14·8	6·4	—	1·4	8·0	1·5	5·0	0·4	3·5	0·9	9·8	—	35 53 N.	14 30 E.
39·24	2·78	18 Oct.	9·5	—	—	—	—	14·5	9·8	—	1·7	7·6	6·1	6·0	5·0	1·3	0·3	1·3	—	29 3 S.	30 2 E.
146·51	4·40	24 Aug.	13·6	—	—	3·4	—	15·1	—	—	5·2	0·5	3·1	0·7	11·3	2·2	5·8	0·8	0·7	8 29 N.	13 9 W.
37·67	2·37	23 Oct.	15·6	—	—	0·3	—	18·8	6·5	0·1	—	17·0	9·2	4·3	—	—	—	—	—	13 7 N.	59 40 W.
72·23	4·40	12 Nov.	12·6	—	—	4·7	—	12·1	7·6	—	3·8	13·8	4·8	0·5	—	0·1	0·4	1·0	6·0	18 6 N.	76 42 W.
32·79	6·12	8 Oct.	6·3	—	—	1·6	—	22·8	3·8	—	1·5	2·0	0·2	16·3	3·0	3·1	1·2	1·5	1·6	17 59 N.	76 56 W.
44·09	3·30	14 June	11·2	—	—	1·3	—	2·7	8·8	0·08	1·7	6·1	6·4	9·2	2·3	2·7	0·2	1·6	·08	25 5 N.	77 21 W.
46·29	3·90	16 Dec.	8·7	—	·08	1·3	—	17·3	3·4	0·5	2·5	3·7	1·7	6·2	2·5	8·7	3·0	2·2	—	32 17 N.	64 47 W.
77·14	4·42	7 Dec.	11·7	—	—	6·6	—	10·7	6·2	0·7	2·0	7·4	2·7	3·8	0·6	5·0	2·3	6·6	—	1 16 N.	105 31 E.
84·42	11·40	10 Sept.	11·5	—	—	0·5	—	14·4	7·4	·08	0·9	11·1	7·1	1·3	0·5	1·3	2·1	2·3	3·6	22 16 N.	114 9 E.
0·19	—	—	0·9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	unknown	

APPENDIX No. XIX.

TABLE showing the AVERAGE STRENGTH of the TROOPS at each of the PRINCIPAL STATIONS in the UNITED KINGDOM, with the ADMISSIONS into HOSPITALS for PRIMARY VENEREAL SORES, SECONDARY SYPHILIS, and GONORRHŒA respectively in each year from 1860 to 1884, inclusive together with the ratio per 1,000 of Strength.

Stations.	1860.				1861.				1862.				1863.				1864.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth	3,825	609	125	684	3,537	703	161	623	3,426	500	152	497	2,782	344	143	354	2,481	274	52	287
Portsmouth - -	5,710	1,073	260	1,057	5,107	851	188	1,041	4,691	608	232	839	4,630	497	246	669	4,436	538	261	578
Chatham, Sheerness, and Gravesend - -	5,647	601	157	919	4,609	470	263	622	3,634	327	276	511	3,899	366	121	590	3,804	334	163	554
Woolwich - - -	6,877	1,280	470	1,065	5,967	823	299	894	5,887	781	224	878	5,234	500	183	641	4,8 24	384	122	417
Aldershot - - -	15,164	1,939	485	1,681	12,898	1,894	451	1,362	12,078	1,400	478	1,548	11,746	1,297	487	1,116	10,700	1,129	504	1,301
Windsor - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shorncliffe - - -	3,631	476	136	386	3,758	459	88	434	3,589	234	86	389	2,905	236	67	328	2,530	208	96	231
Colchester - - -	2,609	440	68	451	2,135	286	62	350	1,479	233	62	247	1,850	241	102	289	2,089	247	72	370
Winchester - - -	1,449	176	47	293	1,186	118	47	198	674	107	19	133	621	63	20	88	647	72	21	117
Dover - - -	2,405	365	94	306	2,339	352	60	432	2,054	212	69	299	2,188	215	51	325	2,214	199	42	206
Canterbury - - -	1,880	155	47	237	1,593	227	65	254	1,124	119	74	247	1,079	147	68	209	1,178	80	41	204
Maidstone - - -	492	52	13	59	412	14	12	39	271	6	7	17	299	24	4	24	216	8	14	9
Cork - - -	1,848	222	49	205	1,835	217	52	248	1,408	153	29	131	1,126	108	63	92	1,070	81	38	111
Curragh - - -	5,942	1,017	221	623	5,962	853	329	636	5,007	544	176	547	5,060	615	219	477	4,505	581	205	418
Total - -	57,479	8,405	2,172	7,966	51,338	7,267	2,077	7,133	45,322	5,224	1,874	6,283	43,419	4,653	1,774	5,202	40,694	4,135	1,631	4,803
Ratio per 1,000 -	—	146	37	139	—	142	40	139	—	117	41	139	—	107	40	120	—	192	40	118
Isle of Wight - -	1,245	111	32	163	1,164	100	40	135	800	86	17	134	1,037	50	38	125	1,118	83	35	162
London - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Warley - - -	No returns.				336	30	27	34	823	62	38	116	692	88	36	135	581	30	24	97
Hounslow - - -	386	46	28	37	367	49	13	30	547	52	13	9	513	45	13	26	536	24	16	12
Pembroke Dock - -	1,315	92	26	125	1,262	87	30	147	750	36	27	73	819	43	22	75	805	52	29	84
Sheffield - - -	509	85	9	67	632	61	16	63	573	76	25	70	626	47	29	46	567	31	6	48
Manchester - -	1,168	135	17	130	1,118	258	13	210	1,051	185	45	192	1,031	96	70	117	962	100	66	91
Preston - - -	944	126	15	190	1,068	88	20	82	710	38	31	134	698	39	67	98	855	85	12	196
Edinburgh - - -	1,471	173	37	197	1,496	145	22	176	1,409	98	49	207	1,303	138	35	176	1,128	74	24	110
Fermoy - - -	1,666	172	19	173	1,820	117	18	145	1,204	43	80	83	1,355	87	35	122	1,425	49	29	102
Limerick - - -	1,257	154	11	229	1,246	150	30	157	1,064	148	27	146	910	146	18	68	783	101	25	71
Athlone - - -	922	81	19	201	717	100	39	82	810	41	27	90	876	38	18	112	738	107	46	93
Dublin - - -	5,423	1,009	239	708	4,899	706	235	566	4,645	577	165	715	4,622	741	196	647	4,607	825	211	494
Belfast - - -	812	108	23	154	1,001	158	30	196	640	58	23	101	650	54	37	71	789	86	23	76
London & Windsor combined - - -	5,782	766	164	297	5,757	839	214	299	4,755	621	174	367	4,987	745	193	361	5,093	806	183	389
Total - -	22,900	3,058	644	2,671	22,883	2,888	747	2,322	19,781	2,121	691	2,437	20,119	2,357	807	2,177	19,987	2,455	729	2,025
Ratio per 1,000 -	—	134	28	139	—	120	32	118	—	100	34	138	—	107	40	120	—	111	36	110

Stations.	1865.				1866.				1867.				1868.				1869.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth	2,569	342	70	377	2,556	209	76	432	2,443	185	57	434	2,418	159	87	359	2,199	162	45	274
Portsmouth - -	4,824	545	175	662	4,510	452	157	747	4,351	504	148	782	4,928	422	133	925	4,668	289	103	586
Chatham Sheerness, and Gravesend - -	4,188	360	132	584	3,095	259	142	497	4,481	317	189	587	4,489	284	127	699	4,024	163	100	457
Woolwich - - -	4,795	363	107	394	4,607	410	106	385	4,892	432	128	563	5,003	233	122	474	5,261	271	112	465
Aldershot - - -	11,049	1,108	390	1,235	9,211	742	265	815	7,894	638	255	784	9,879	760	283	992	10,598	668	331	1,103
Windsor - - -	—	—	—	—	—	—	—	—	1,074	62	—	60	1,053	143	—	66	1,035	96	20	84
Shorncliffe - - -	2,744	187	103	265	2,404	137	50	267	2,616	111	65	326	2,554	197	112	314	2,687	163	53	271
Colchester - - -	2,366	254	82	398	2,255	389	65	422	2,378	346	80	538	2,059	374	116	440	1,883	160	53	273
Winchester - -	978	71	20	202	928	43	28	137	902	47	47	116	882	92	43	152	794	80	21	104
Dover - - -	2,387	160	46	174	2,078	186	29	217	2,014	267	96	275	2,366	262	92	428	2,433	195	100	252
Canterbury - - -	1,000	77	24	100	931	109	45	122	981	116	23	173	1,148	131	44	241	956	43	31	130
Maidstone - - -	344	61	12	68	375	52	12	55	384	93	13	108	433	53	10	98	443	57	13	117
Cork - - - -	1,423	122	45	126	1,768	87	37	112	1,570	113	27	119	1,448	88	41	117	1,624	119	34	131
Curragh - - -	4,411	427	138	352	4,758	369	126	365	3,931	409	122	409	3,935	385	109	380	3,412	299	75	219
Total - - -	43,078	4,077	1,344	4,937	39,476	3,444	1,138	4,573	39,911	3,640	1,250	5,274	42,595	3,533	1,319	5,685	42,017	2,765	1,091	4,466
Ratio per 1,000 -	—	95	31	115	—	87	28	116	—	91	31	132	—	83	30	133	—	66	25	106
Isle of Wight - -	1,210	39	23	199	1,220	14	16	241	1,105	65	43	182	976	101	53	145	998	129	60	185
London - - -	—	—	—	—	—	—	—	—	4,380	715	—	330	4,353	645	—	326	4,155	597	142	271
Warley - - -	619	60	7	119	1,020	81	15	211	1,228	91	11	268	824	76	14	149	661	40	26	52
Hounslow - - -	514	12	9	16	524	11	16	39	498	31	16	48	416	44	29	34	483	41	12	41
Pembroke Dock - -	419	35	9	24	748	23	4	39	968	27	9	93	1,242	44	18	104	1,035	53	3	66
Sheffield - - -	703	66	31	89	595	63	26	75	800	130	23	227	801	86	26	152	644	94	17	93
Manchester - -	940	119	54	142	813	75	36	120	1,021	181	28	244	1,142	132	62	129	914	146	49	100
Preston - - -	1,033	88	28	214	847	64	15	109	1,065	93	35	192	883	77	47	161	874	150	45	178
Edinburgh - - -	1,175	132	16	155	1,059	61	16	86	1,024	65	22	132	1,118	51	17	91	1,055	63	18	87
Fermoy - - -	888	39	14	40	844	30	26	53	1,077	75	14	101	867	41	15	87	872	101	19	70
Limerick - - -	813	58	21	143	767	37	16	42	855	100	14	91	899	103	27	103	755	41	9	36
Athlone - - -	439	68	20	37	576	24	26	31	679	58	12	70	548	21	13	53	553	23	6	62
Dublin - - -	4,397	659	169	626	4,986	627	157	566	5,373	695	193	656	4,898	680	201	579	4,294	772	213	549
Belfast - - -	941	43	23	164	596	44	17	51	516	46	19	36	519	29	3	123	446	23	3	66
London & Windsor combined - - -	5,391	738	162	387	5,240	791	117	322	—	—	110	—	—	—	193	—	—	—	—	—
Total - - -	19,482	2,156	586	3,353	19,835	1,945	503	1,985	20,589	2,372	549	2,670	19,486	2,130	718	2,236	17,739	2,273	622	1,856
Ratio per 1,000 -	—	101	30	140	—	79	25	114	—	115	26	130	—	109	36	115	—	128	35	105

Stations.	1870.				1871.				1872.				1873.				1874.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth	2,208	85	29	262	3,200	159	49	614	2,748	161	73	421	3,036	112	59	289	2,936	108	67	185
Portsmouth - -	4,548	232	101	564	5,656	231	88	794	6,065	241	138	724	5,721	250	104	564	6,003	287	97	398
Chatham, Sheerness, and Gravesend - -	4,115	192	74	434	4,719	309	79	650	4,674	228	78	414	4,202	172	86	334	4,257	140	90	259
Woolwich - - -	5,569	241	88	547	5,814	336	63	754	6,257	373	87	869	6,213	370	151	600	6,206	293	155	419
Aldershot - - -	11,235	757	370	1,063	15,493	1,011	298	1,706	12,741	795	324	1,332	11,821	852	291	1,068	12,922	666	307	900
Windsor - - -	1,070	72	16	53	1,046	81	12	55	1,035	99	14	61	1,089	92	36	58	1,037	65	34	42
Shorncliffe - - -	2,145	80	47	157	2,938	87	44	245	2,738	91	60	144	2,238	47	44	136	2,438	35	64	109
Colchester - - -	1,677	70	28	214	2,331	74	74	249	2,124	117	59	306	1,873	78	32	161	1,685	34	44	106
Winchester - - -	441	27	9	27	752	22	20	75	837	48	47	55	679	18	20	46	994	38	10	63
Dover - - -	2,477	75	64	223	2,759	70	40	238	2,691	127	23	203	2,365	91	27	149	2,381	87	36	164
Canterbury - - -	732	111	26	129	985	37	20	243	891	38	16	129	1,015	20	24	106	987	36	36	63
Maidstone - - -	205	14	10	35	338	15	8	19	331	19	8	51	272	16	3	33	212	14	7	11
Cork - - -	1,885	129	46	149	2,345	129	37	213	2,595	161	57	218	2,525	153	47	168	2,116	54	28	85
Curragh - - -	3,273	183	88	224	5,714	202	100	390	5,067	254	66	363	4,990	149	45	234	3,962	182	99	164
Total - -	41,580	2,268	996	4,081	54,090	2,763	932	6,254	50,794	2,752	1,045	5,290	48,039	2,420	969	3,946	48,136	2,039	1,074	2,968
Ratio per 1,000 -	—	55	23	98	—	51	17	116	—	54	20	104	—	50	20	82	—	42	22	62
Isle of Wight - -	806	52	11	94	1,147	76	28	147	1,190	68	71	102	1,128	43	52	75	1,206	107	63	142
London - - -	4,294	689	97	283	4,282	657	125	363	4,708	937	219	356	4,278	790	200	381	3,996	716	177	412
Warley - - -	600	33	15	68	1,073	61	22	127	711	47	26	81	953	21	7	77	941	30	23	73
Hounslow - - -	536	47	17	47	753	34	23	41	667	60	13	50	631	42	6	43	663	45	5	34
Pembroke Dock - -	772	42	18	89	1,057	30	24	98	935	25	28	51	1,282	32	54	61	1,359	29	72	69
Sheffield - - -	689	53	12	90	730	92	21	153	837	82	31	154	732	52	32	110	801	39	22	73
Manchester - -	1,084	100	54	144	1,133	79	30	145	944	92	12	133	1,028	94	21	115	1,058	112	20	96
Preston - - -	558	75	16	83	916	69	30	130	874	100	27	114	834	103	17	151	672	65	46	85
Edinburgh - - -	1,056	105	35	124	1,106	76	33	98	1,082	46	48	116	1,154	51	28	75	1,253	31	38	56
Fermoy - - -	1,271	110	50	65	1,230	41	9	46	1,128	63	13	79	967	20	8	37	768	8	8	14
Limerick - - -	722	98	23	57	742	42	39	76	802	80	16	63	882	69	28	84	829	48	9	22
Athlone - - -	482	21	9	57	493	23	10	37	720	10	7	29	637	9	6	13	592	5	4	14
Dublin - - -	4,495	576	193	452	4,638	545	184	575	4,914	813	161	737	4,608	629	160	569	3,946	375	138	289
Belfast - - -	487	21	5	70	657	40	14	101	438	34	12	48	687	71	13	97	795	51	19	71
Total - - -	17,852	2,022	555	1,723	19,957	1,865	592	2,137	19,950	2,457	684	2,113	19,801	2,025	632	1,888	18,879	1,661	644	1,450
Ratio per 1,000 -	—	113	31	96	—	93	29	107	—	123	34	106	—	102	31	95	—	88	34	77

Stations.	1875.				1876.				1877.				1878.				1879.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth	2,575	75	64	157	2,658	71	58	247	2,934	83	71	239	3,227	111	53	322	2,210	74	39	195
Portsmouth	5,555	169	128	384	5,592	151	143	385	4,575	124	94	335	5,733	84	119	372	4,127	110	72	290
Chatham, Sheerness, and Gravesend	4,542	75	106	226	4,588	151	117	282	5,080	219	88	429	5,734	280	130	586	4,135	209	104	326
Woolwich	5,605	330	210	392	5,783	241	178	470	6,246	179	213	395	6,435	244	318	506	5,320	234	310	274
Aldershot	12,934	600	289	814	12,055	563	322	901	14,416	657	282	978	13,775	730	253	1,156	11,019	622	210	964
Windsor	972	40	67	43	956	39	24	78	1,020	82	24	77	1,096	43	44	80	1,023	47	39	72
Shorncliffe	2,695	48	53	80	2,748	60	47	115	2,932	62	68	117	3,314	136	90	143	2,339	159	72	121
Colchester	2,248	72	53	180	2,631	80	22	190	2,502	79	42	158	2,863	53	32	262	1,984	73	57	81
Winchester	957	26	10	66	983	20	16	85	1,004	18	15	119	1,129	43	21	124	1,049	24	33	66
Dover	2,300	63	43	118	2,478	75	63	112	3,225	62	32	178	3,244	102	32	203	2,561	93	78	145
Canterbury	1,138	14	39	76	1,408	38	19	80	1,378	26	15	107	1,460	40	13	83	1,211	41	18	83
Maidstone	138	1	2	5	108	3	4	2	119	4	1	8	146	1	1	11	156	3	3	3
Cork	2,689	57	41	101	2,520	54	42	150	2,437	39	19	90	2,439	88	32	107	2,275	67	36	106
Curragh	4,258	147	90	183	4,112	76	66	205	4,554	175	96	321	5,218	280	84	397	3,237	249	65	213
Total	48,606	1,717	1,195	2,825	48,620	1,622	1,121	3,302	52,422	1,809	1,060	3,551	55,813	2,235	1,222	4,352	42,646	2,005	1,136	2,939
Ratio per 1,000	—	35	24	58	—	33	23	68	—	35	20	68	—	40	21	78	—	47	26	69
Isle of Wight	1,222	109	73	68	1,139	61	37	73	1,092	56	43	95	1,311	66	56	79	887	50	20	45
London	3,897	730	185	373	3,735	545	170	366	3,979	660	170	598	4,246	1,060	262	640	4,284	743	182	491
Warley	819	30	11	70	824	42	13	79	1,129	67	11	138	722	101	19	116	440	53	20	24
Hounslow	680	16	6	29	666	50	8	39	621	30	16	39	774	31	22	48	751	14	14	18
Pembroke Dock	1,218	38	38	43	972	28	38	47	863	14	8	56	963	12	3	44	862	13	6	36
Sheffield	779	68	23	71	812	97	21	72	881	56	30	90	840	81	29	137	689	91	44	139
Manchester	1,068	95	50	115	1,063	120	45	162	1,198	157	69	214	1,199	246	42	212	825	169	39	100
Preston	749	43	71	54	819	63	77	86	848	65	71	98	965	70	55	141	666	38	63	79
Edinburgh	1,222	33	13	85	1,155	103	18	86	1,122	53	43	74	1,366	98	50	137	1,188	95	53	131
Fermoy	1,200	15	17	39	1,182	37	36	76	886	26	23	42	694	18	24	52	811	27	12	68
Limerick	903	23	13	29	802	38	14	41	845	63	11	79	918	78	30	96	755	21	18	46
Athlone	818	8	22	13	603	5	33	30	709	25	24	41	760	22	38	54	647	10	9	34
Dublin	4,267	311	276	370	4,062	310	224	459	4,131	425	156	574	5,067	779	238	639	4,477	523	190	422
Belfast	751	33	19	46	956	55	11	61	772	33	18	96	924	61	5	113	776	96	21	86
Total	19,573	1,552	817	1,405	18,790	1,554	745	1,677	19,076	1,730	693	2,234	20,749	2,723	873	2,508	18,058	1,943	691	1,719
Ratio per 1,000	—	79	41	72	—	82	93	89	—	91	36	117	—	131	42	121	—	103	38	95

Stations.	1880.				1881.				1882.				1883.				1884.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth	2,632	132	71	412	2,176	111	69	258	2,414	179	27	427	2,560	310	54	452	2,210	291	46	287
Portsmouth - -	4,435	338	110	537	3,863	220	96	490	4,015	247	88	485	4,219	385	69	417	4,355	603	88	594
Chatham, Sheerness, and Gravesend - -	4,031	250	86	397	3,784	239	44	368	4,103	290	60	416	3,002	253	49	309	3,150	445	71	420
Woolwich - - -	5,308	390	472	423	4,032	256	346	268	4,445	284	94	271	4,398	374	53	313	4,323	572	97	377
Aldershot - - -	11,068	823	194	1,172	10,730	1,076	180	1,013	10,642	1,228	232	1,319	9,110	1,444	343	1,072	9,201	1,729	317	954
Windsor - - -	989	105	66	78	1,025	167	55	74	954	110	68	56	961	78	50	68	1,001	67	28	85
Shorncliffe - - -	2,499	215	57	140	1,617	55	35	115	1,718	84	47	131	1,649	155	56	96	1,516	138	27	101
Colchester - - -	2,145	93	53	196	2,269	192	24	301	2,276	140	55	203	2,244	265	57	260	2,256	327	65	238
Winchester - - -	865	39	11	76	629	33	20	62	713	47	27	62	1,102	63	22	108	1,154	78	21	80
Dover - - -	2,286	113	38	192	2,042	102	24	142	2,152	61	55	122	2,137	135	48	140	1,667	128	47	152
Canterbury - - -	1,224	92	18	99	1,169	101	25	171	1,391	75	28	179	1,483	114	27	186	1,259	154	26	118
Maidstone - - -	209	9	3	27	220	10	7	25	199	10	5	8	205	5	6	11	177	9	7	11
Cork - - - -	1,955	140	36	168	2,083	110	40	96	2,111	140	54	96	2,078	177	67	135	2,199	205	56	166
Curragh - - -	4,380	541	116	470	3,919	248	102	438	4,650	380	100	424	3,041	414	60	221	3,391	489	74	235
Total - - -	44,026	3,280	1,331	4,387	39,558	2,920	1,067	3,821	41,783	3,275	940	4,199	38,089	4,172	961	3,788	37,859	5,235	970	3,818
Ratio per 1,000 -	—	74	30	100	—	74	26	97	—	78	22	100	—	110	25	99	—	138	25	101
Isle of Wight - -	1,013	70	12	78	835	62	10	95	773	95	21	88	806	92	21	73	917	51	14	85
London - - -	4,445	1,001	223	625	4,419	967	248	507	4,419	813	181	411	4,367	1,120	197	499	3,987	672	214	540
Warley - - -	479	32	14	31	297	36	4	43	542	92	19	86	516	88	9	89	415	66	9	77
Hounslow - - -	873	102	12	63	818	99	17	59	750	48	12	48	800	61	15	42	841	76	19	46
Pembroke Dock - -	721	46	21	64	882	85	42	76	891	62	19	60	769	72	10	71	809	67	30	27
Sheffield - - -	664	102	37	88	680	190	28	138	646	170	24	144	558	101	29	89	590	125	36	95
Manchester - - -	943	219	66	170	936	213	61	169	992	285	39	244	805	213	47	195	771	173	60	121
Preston - - -	716	70	22	159	614	64	13	44	728	50	13	51	455	25	11	49	454	39	22	69
Edinburgh - - -	1,112	83	48	132	1,205	113	37	111	1,059	108	34	117	855	83	23	77	1,018	110	28	172
Fermoy - - -	513	48	11	33	1,137	95	18	91	1,030	71	33	50	978	60	8	59	1,179	84	20	53
Limerick - - -	763	47	16	98	1,062	152	56	86	1,215	99	21	98	1,144	131	39	104	1,088	61	42	69
Athlone - - -	655	32	8	35	832	30	19	54	782	12	23	48	677	9	23	38	696	22	17	46
Dublin - - -	4,357	940	140	605	4,877	1,261	208	753	4,841	1,474	282	1,044	4,721	1,249	368	946	5,054	1,315	373	974
Belfast - - -	800	218	38	124	1,049	192	43	177	781	102	18	129	823	137	10	112	816	119	32	168
Total - - -	18,054	3,010	668	2,305	19,643	3,559	804	2,403	19,449	3,481	739	2,618	18,274	3,441	810	2,443	18,635	2,980	916	2,542
Ratio per 1,000 -	—	167	37	128	—	181	40	122	—	179	37	135	—	188	44	134	—	160	49	136

APPENDIX No. XX.

THE PARKES' MEMORIAL PRIZE.

Surgeon-General T. LONGMORE, C.B., *President of Committee.*
Professor F. S. B. F. DE CHAUMONT, F.R.S., *Treasurer.*
Surgeon A. M. DAVIES, *Secretary.*

The following is the subject for the next prize :—

ON THE ETIOLOGY AND PREVENTION OF YELLOW FEVER, TO BE ILLUSTRATED, SO FAR AS PRACTICABLE, FROM THE PERSONAL EXPERIENCE OF THE WRITER.

The Prize is One Hundred Pounds in Money and a Gold Medal value Fifteen Guineas.

The Competition is open to all Medical Officers of the Army, Navy, and Indian Services of Executive Rank on full pay, with the exception of the Assistant Professors of the Army Medical School during their term of Office. Essays to be sent to the Secretary of the "Parkes' Memorial Fund," Royal Victoria Hospital, Netley, on or before the 31st day of December 1888. Each Essay to have a Motto, and to be accompanied with a sealed envelope bearing the same Motto and containing the name of the Competitor.

APPENDIX No. XXI.

THE ALEXANDER MEMORIAL FUND.

COMMITTEE.

Director-General Sir T. CRAWFORD, K.C.B., M.D., Medical Department, *President.*
Surgeon-General W. A. MACKINNON, C.B.
Surgeon-General T. G. BALFOUR, M.D., F.R.S.
Surgeon-General T. LONGMORE, C.B., Hon. Surgeon to the Queen, Professor of Military Surgery.
Deputy Surgeon-General J. A. BOSTOCK, C.B., Hon. Surgeon to the Queen.
Brigade-Surgeon ALFRED F. S. CLARKE, M.D.
Surgeon-Major F. S. B. F. DE CHAUMONT, M.D., F.R.S., Professor of Military Hygiene.
Inspector-General of Hospitals, R. LAWSON.
Surgeon-General WM. RUTHERFORD, C.B., M.D., Hon. Physician to the Queen.
Surgeon-General WM. MUNRO, C.B., M.D.
Surgeon-General J. IRVINE, M.D.
Brigade-Surgeon FRANCIS COLLINS, M.D.

Surgeon-Major W. JOHNSTON, M.D., *Honorary Secretary.*

PRIZE ESSAY GOLD MEDALLISTS.

1870.	Assistant Surgeon A. B. R. MYERS, Coldstream Guards.
1873.	Surgeon F. H. WELCH, Army Medical Department.
1876.	Surgeon-Major J. H. PORTER, Army Medical Department.
1879.	Surgeon JOHN MARTIN, Army Medical Department.
1882.	Surgeon-Major F. H. WELCH, Army Medical Department.
1885.	Surgeon JOHN MARTIN, Medical Staff.

AT a meeting of the Committee, held on the 4th March 1885, it was unanimously resolved that the prize of 50*l.* and Gold Medal of the value of 10*l.* be awarded to Surgeon John Martin, Medical Staff, for the best essay on "Anti-" septic Surgery and its application in Military Hospitals and in the Field."

The Committee hereby intimate that the subject for the next competition is "On the Relations between the Food and Work of the British Soldier, and " their proper adjustment in Peace and War; on the occurrence of Scurvy " among Troops, and its prevention; and on the use of Preserved and Concen-" trated Foods. With suggestions for alterations or improvements in the " existing rations and times of meals."

Essays to be despatched so as to reach the President of the Committee on or before the 31st December 1887.

Essays are to be legibly and clearly written, superscribed with a brief motto, and accompanied by a sealed envelope, similarly superscribed, containing the name and address of the author.

No essay shall exceed in length 50 pages of ordinary printed octavo, which may be estimated as amounting to 20,000 words (a page of octavo containing about 400 words). This limit to be exclusive of tables, which may be added in the form of appendices.

The competition is limited to Executive Medical Officers of the Army on full pay, but Assistant Professors at Netley are not allowed to compete while so employed.

The relative merits of the essays will be determined by assessors selected by the Committee, and the prize awarded to the writer of the best essay, without reference to the number of competitors, provided the writer has complied with the prescribed conditions.

The authors of unsuccessful essays at the recent, or any of the former competitions, can have them returned on application to the Honorary Secretary, under their respective mottoes, and by giving an address to which they wish the essay sent.

W. JOHNSTON, M.D., Surgeon-Major,
Hon. Sec.

Medical Department,
War Office, 6, Whitehall Yard, S.W.,
6th March 1885.

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